IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

John F. Acres et al.

Serial No.

09/373,034

Examiner:

Jessica Harrison

Confirmation No.:

2149

Filed:

August 11, 1999

Group Art Unit:

3714

For:

METHOD FOR OPERATING NETWORKED GAMING DEVICES

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Responsive to the Office Action dated April 17, 2003, enclosed are the following documents in the above-referenced application.

The fee has been calculated as shown below.

| CLAIMS AS AMENDED | | | | | | | | |
|---|---------------------------|--------------------|-------|----------|-------------------|--|--|--|
| For: | Number After Amendment | Previous Number | Extra | Rate | Additional Fee | | | |
| Total Claims | 23 | 23-20* | 0 | x \$18 = | \$0 | | | |
| Independent Claims | 4 | 4-3** | | x \$86 = | \$0 | | | |
| Extension of Time – 3 rd | | | | I | \$950 | | | |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT | | | | | \$950 | | | |

- Applicant petitions the Commissioner to extend the time for response. The extension fee is included and a duplicate copy of this form is enclosed.
- Response to Office Action
- Reissue Application: Consent of Assignee; Statement of Non-Assignment
- Copy of Judgment in a Civil Case, U.S. District Court for the District Court of Nevada, Case No. CV-S-97-1883-EJW(LRL)
- Copy of Special Verdict Form, U.S. District Court for the District Court of Nevada, Case No. CV-S-97-1883-EJW(LRL)
- Copies of two (2) documents recorded in U.S. Patent and Trademark Office at Reel 011190, Frames 0933-0947 and Reel 011190, Frames 0948-0961
- Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (John F. Acres)
- Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (David Wiebenson)
- Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (Alec Ginsburg)
- Original U.S. Patent No. 5,655,961

PTO Form 2038 authorizing credit card payment for the above-listed fees is enclosed. Any deficiency or overpayment should be charged or credited to deposit account number 13-1703.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

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UNITED STATES DISTRICT COURT

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DISTRICT OF NEVADA

| MIKOHN GAMING CORP., |) |
|---|--------------------------|
| Plaintiff, |) - |
| v |) |
| ACRES GAMING, INC., |) |
| Defendant |)) |
| ACRES GAMING, INC., |) CV-S-97-1383-EJW (LRL) |
| Plaintiff, |) (Base File) |
| v. |) |
| MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & CASINO LLC CASINO DATA SYSTEMS; and SUNSET |) ;)) |
| STATION HOTEL & CASINO, |) |
| Defendants. |)) |
| | _) |

REPORT & RECOMMENDATION

(Findings of Fact & Conclusions of Law Re: Claim Construction)

- This action involves patent infringement claims brought by Acres Gaming, Inc. ("Acres") against Casino Data Systems, Inc. ("CDS") and Mikohn Gaming Corporation ("Mikohn"). The matter presently before the Court is the construction of the asserted claims of United States Patent

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Nos. 5,655,961 (the "961 patent"), 5,752,882 (the "882 patent"), 5,820,459 (the "459 patent") and 5,836,817 (the "817 patent")(referred to collectively as "the patents in suit") held by Acres. More specifically, the Court is called upon to construe the meaning of various claim terms and phrases disputed by the parties.

In January 2000, the Court held a hearing pursuant to *Markman v. Westview Instruments*, *Inc.*, 52 F.3d 967 (Fed.Cir.1995)(enbanc), *aff'd*, 517 U.S. 370 (1996), to determine the meaning of the disputed claim terms and phrases. At the hearing, the Court allowed the parties to present expert testimony for the purpose of providing the Court with background in this technical area. In addition to the evidence and arguments presented by the parties at the *Markman* hearing, the court has considered numerous pre-hearing and post-hearing briefs and other filings. Based thereon, the undersigned recommends that the Court adopt the following findings of fact and conclusions of law.

FINDINGS OF FACT AND CONCLUSIONS OF LAW¹

I. INTRODUCTION

- 1. The '961 patent, titled "Method of Operating Networked Gaming Devices," was applied for on October 12, 1994 and issued on August 11, 1997. (Mikohn Br. p. 1 at ¶ 2; Acres Br. p.1 at ¶ 1.)²
- 2. The '882, '459 and '817 patents are each titled "Method and Apparatus for Operating

¹ To the extent, if any, that the findings of fact may be deemed conclusions of law, they shall also be considered conclusions of law. Similarly, to the extent, if any, that matters expressed as conclusions of law may be deemed findings of fact, they shall also be considered findings of fact. See Miller v. Fenton, 474 U.S. 104, 113-14 (1985).

² Citations to "Mikohn Br." and "Acres Br." refer to Mikohn's Proposed Findings of Fact and Conclusions of Law (#378A) and Acres' Proposed Findings of Fact and Conclusions of Law (#380), respectively. Future citation to "CDS Br." will refer CDS' Post Markman Hearing Memorandum (#372).

Networked Gaming Devices." (Mikohn Br. p. 1 at ¶ 3.) The applications for the '882, '459 and '817 patents were each filed on June 6, 1995. (Acres Br. p. 1 at ¶ 2.) The patents issued on May 19, 1998, October 13, 1998, and November 17, 1998, respectively. Each of the '882, '459 and '817 patents is a division of the '961 patent. (Mikohn Br. p. 1 at ¶ 3.)

- The patents in suit share the same specification (i.e., the text and drawings).³ (Mikohn Br. p. 1 at ¶ 4; Acres Br. p. 1 at ¶ 1.) Only the claims of the patents in suit differ, although many use similar terms and phrases. (Acres Br. p. 1 at ¶ 1.)
- 4. The patents in suit relate "generally to gaming devices, and more particularly to a method and apparatus for controlling gaming devices interconnected by a computer network." ('961 Patent Specification ("'961 Pat.") at col. 1, ll. 1-5.)⁴ The specification describes the following system:

A system for operating networked gaming devices is described. The system according to the invention allows a casino in which the system is installed to run promotions or bonuses on any properly equipped gaming machines while simultaneously gathering player tracking and accounting data from all machines.

(Id. at col. 2, ll. 45-50.)

5. The basic architecture of the patented system involves a "host computer" connected to a plurality of "gaming devices." (Id. at col.2, ll. 54-56 ("The system includes a plurality of gaming devices or machines connected to an associated floor controller over a network"); col. 6, ll. 20-24; col. 7, ll. 1-7; Fig. 1).) The specification describes the patented system as follows:

^{- 3} As will-be discussed herein, the specification is a detailed written description of the patent.

Because the patents in suit share the same specification, the Court will cite to the '961 patent specification unless otherwise noted.

The system includes the following capabilities: remote reconfiguration, accounting data extraction, integrated player tracking, and cashless play. Remote reconfiguration includes sending a reconfiguration command from a host computer to one or more of the gaming devices. The gaming devices, on receiving a reconfiguration command will reconfigure its [sic] jackpot payout schedule in accordance with the reconfiguration command.

(Id. at col. 6, 11. 24-31); (Mikohn Br. p. 1 at ¶ 5.)

- 6. The patented system allows the casino to "select" which gaming devices are to be used in a specific promotion: "The system provides the capability for the casino to select which of the plurality of machines are used in any given promotion. The system further allows any number of different promotions to operate simultaneously." ('961 Pat. at col. 2, ll. 50-53.)
- 7. A gaming device that has been selected to be part of a specific promotion receives a "reconfiguration command," causing the gaming device to reconfigure its "payout schedule":

Each promotion involves sending a reconfiguration command from the floor controller to a gaming device that has been selected to be part of a given promotion over the associated network. Upon receipt of the reconfiguration command, the gaming device reconfigures its payout schedule in accordance with the received reconfiguration command.

(Id. at col. 2, ll. 61-67.)

8. The specification expressly provides descriptions of four different promotions: (1) multiple jackpot; (2) mystery jackpot; (3) bonus jackpot; and (4) progressive jackpot. (See id. at col. 3, 11. 2-12; col. 6, 11. 48-57; col 25, 11. 41-47; col. 25, 1. 48 to col. 26, 1. 24.) The specification states, however, that many other embodiments of the bonusing invention are possible. (See id. at col. 3, 11. 2-8.)

- 9. In the multiple jackpot promotion, a gaming device that is selected to be part of this promotion "reconfigures its payout to be a multiple of its default payout schedule." (Id. at col. 3, ll. 3-5.)
- 10. According to the patent specification, a "mystery" jackpot is a jackpot that is paid to a player "even when a jackpot was not won." (Id. at col. 36, 1l. 27-30.) As explained in the patent specification, the mystery jackpot "reconfiguration command can specify that the mystery jackpot is to occur after a certain number of coins, a certain number of handle pulls, or a variety of other conditions specified by the reconfiguration commands." (Id. at col. 36, 1l. 29-33); (Mikohn Br. p. 3 at ¶ 10.)
- In the bonus jackpot promotion, a gaming device that is selected to be part of this promotion "reconfigures its payout schedule to payout an additional bonus amount when certain conditions are met." ('961 Pat. at col. 3, 1l. 5-7.)
- 12. In the progressive jackpot promotion, "two or more gaming devices are combined in a progressive jackpot having a progressive jackpot payout schedule." (Id. at col. 20, ll. 16-18.) As explained by the patent specification, the progressive jackpot promotion involves a reconfiguration command that is sent to a plurality of gaming devices:

Another reconfiguration command allows any number of machines on the network to be combined in a common jackpot having a common jackpot payout schedule, wherein the reconfiguration command reconfigures the selected machines to payout in accordance with the common jackpot payout schedule. In this case, the reconfiguration message would be queued up for each of the selected machines to be combined in a common jackpot. One example of a common jackpot is a progressive jackpot. (Id. at col. 36, Il. 5-13); (Mikohn Br. p. 3 at ¶ 12.)

Acres alleges Mikohn infringes the following claims of the patents in suit: claim 1 of the '961 patent; claims 1, 2, 10, 11 and 18 of the '882 patent; claims 1, 4, 8, 15, 16 and 18 of the '459 patent; and claims 1, 21, 24 and 29 of the '817 patent. Acres alleges CDS infringes the following claims of the patents in suit: claims 10 and 19 of the '882 patent; and claim 22 of the '817 patent.

At issue is the meaning of a number of the terms and phrases in the above claims. Many of the disputed terms and phrases are used in more than one claim. The Court's construction of a term

or phrase in a particular claim shall be applied consistently throughout the patents in suit unless

II. LEGAL STANDARD

otherwise noted.

- Two steps are involved in a patent infringement analysis: "the proper construction of the asserted claim and a determination as to whether the accused method or product infringes the asserted claim as properly construed." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-82 (Fed.Cir.1996). Only the first step, claim construction, is before the Court.
- 16. The issue of claim construction is a matter of law for the court. See Markman, 52 F.3d at 979. The purpose of claim construction analysis is to determine the meaning given to each disputed term by a person of ordinary skill in the relevant art. Haynes Int'l, Inc. v. Jessop Steel Co., 8 F.3d 1573, 1578 n.4 (Fed.Cir.1993). "[I]n interpreting an asserted claim, the court should look first to the intrinsic evidence of the record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Vitronics, 90 F.3d at 1582. The intrinsic evidence "constitute[s] the public record of the patentee's claim, a record on which the public is entitled to

rely." *Id.* at 1583. "Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Id.* at 1582. Indeed, "[i]n most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." *Id.* at 1583.

- 17. Construction of a claim, however, begins with the words themselves. *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 619-20 (Fed.Cir.1995). "[T]he language of the claim defines the scope of the protected invention." *Id.* at 619. Words in a claim are generally given their customary and ordinary meaning. *Vitronics*, 90 F.3d at 1582. That is, "a court must presume that the terms in the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of claim terms." *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed.Cir.1999). The ordinary meaning of claim terms and phrases cannot be changed by reference to the specification or other intrinsic evidence "unless the *language of the claims invites reference* to those sources." *Id.* at 989-90 (emphasis added). Thus, where the language of the claim does not invite reference to other sources, the ordinary meaning of the words used in a claim will prevail and the analysis ends. *See id.* at 989-90.
- Thus, it may be "necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent" with their plain meaning. *Vitronics*, 90 F.3d at 1582. "The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it." *Id.* The specification, therefore, is always relevant to the claim construction analysis and usually is dispositive. " *Id.* "[I]t is the single best guide to the meaning of a disputed term." *Id.* A patentee, therefore, who invites

reference in the claim language to intrinsic evidence "may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning as long as the special definition of the term is clearly stated in the patent specification or file history." Id. (emphasis added). "In other words, where the inventor does not clearly explain the adoption of an uncommon or new definition for a claim term, the common meaning of that term to one of ordinary skill in the art controls." Loral Fairchild Corp. v. Victor Co., 906 F.Supp. 798, 803 (E.D.N.Y.1995).

- 19. A court may also consider the prosecution history of a patent in its claim-construction analysis. *Markman*, 52 F.3d at 980. The prosecution history "contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims." *Vitronics*, 90 F.3d at 1582. "As such, the [prosecution history] is often of critical significance in determining the meaning of the claims." *Id.* at 1583.
- 20. In those cases where the intrinsic evidence discussed above unambiguously defines a term, "reliance on any extrinsic evidence is improper." *Id.* Thus, only where the intrinsic evidence is insufficient to enable a court to determine the meaning of a disputed term may the court rely on extrinsic evidence to understand the technology and to construe the claims. *Id.* at 1584.

Extrinsic evidence is that evidence which is external to the patent and file history, such as expert testimony, inventor testimony, dictionaries, and technical treatises and articles. However,...extrinsic evidence in general, and expert testimony in particular, may be used only to help the court come to the proper understanding of the claims; it may not be used to vary or contradict the claim language. Nor may it contradict the import of other parts of the specification. Indeed, where the patent documents are unambiguous, expert testimony regarding the meaning of a claim is entitled no

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weight...Nor may the inventor's subjective intent as to claim scope, when unexpressed in the patent documents have any effect. Such testimony cannot guide the court to a proper interpretation when the patent documents themselves do so clearly.

- Id. (emphasis added) (internal citations omitted).
- "The Federal Circuit has admonished that claims should preferably be interpreted without recourse to extrinsic evidence such as expert testimony, other than perhaps dictionaries or reference books, and that expert testimony should be received only for the purpose of educating the judge."

 EMI Group North America, Inc. v. Intel Corp., 157 F.3d 887, 892 (Fed.Cir.1998) (emphasis added), cert. denied, 119 S.Ct. 1756 (1999). Expert testimony, therefore, "is not to be relied upon for purposes of claim interpretation, other than to aid the judge in understanding the technology."

 Id.(citing Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 n.3, 1455-56 (Fed.Cir.1998) (en banc)).
- As mentioned above, treatises and dictionaries also fall within the category of extrinsic evidence. However, the court is "free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d. at 1584 n. 6. Thus, federal courts may rely on dictionary definitions to ascertain a term's ordinary meaning so long as it does not contradict a definition that is *clearly stated* in the patent specification or file history. *See*, *e.g.*, *York Prods.*, *Inc.* v. *Central Tractor Farm and Family Center*, 99 F.3d 1568, 1572-73 (Fed.Cir.1996).

23. As previously discussed, this Court's analysis is limited to the proper construction of the terms and phrases that are in dispute. The Court, therefore, will decline to address any issues raised by the parties that touches upon issues of actual infringement. Actual infringement, the second step in infringement analysis, is a question of fact appropriate for resolution by the jury, or on summary judgment where a reasonable fact finder finds no infringement. See Design-Rite, Inc., v. J.V. Mfg., Inc., 29 F.Supp.2d 379 (E.D.Mich.1998).

III. ANALYSIS

1. "Gaming Device"

- The parties dispute the meaning of the term "gaming device" in claim 1 of the '961 patent, claims 1 and 10 of the '882 patent, claim 1 of the '459 patent, and claims 1, 21, 22 and 24 of the '817 patent. Mikohn and CDS argue that the term "gaming device" means "any device used in gaming." More specifically, they argue that a "gaming device" can be a manually operated table game. Acres argues that the term "gaming device" means "an automatic device that performs at least the three automatic functions of (1) accepting wagers, (2) determining win or loss, and (3) providing for coin-out--i.e., automatically paying any winning amounts." Acres argues that the only table games that would fall within the meaning of "gaming devices" are those that are "fully automated."
- The real crux of the dispute between the parties is whether manually operated table games fall within the meaning of "gaming devices" as that term is used in relation to the patents in suit. The claim language does not shed light on what types of table games are included within the meaning of the term "gaming device." The Court, however, need look no further than the

specification to find the answer. The specification, in pertinent part, reads:

The system supports a multiplicity of various gaming devices. The gaming devices 12-16 and 22-26 shown in FIG. 1 are the type having a pull handle for initiating a game, e.g., slot machines. However, the invention is not limited to such gaming devices. The gaming devices shown in FIG. 1 can also be gaming tables or push button operated machines as well, e.g. video poker. As will be described hereinafter, the system supports any gaming device providing traditional discrete connections, e.g. coins-in, coins-out, etc., as well as those having serial interfaces, as described below.

(961 Pat. at col. 7, ll. 8-17) (emphasis added).

- The specification provides that "gaming tables" are included within the meaning of the term "gaming devices." It does not state that only *certain types* of "gaming tables" meet this definition. The clear import, therefore, is that there are no restrictions on the types of "gaming tables" that meet the definition of a "gaming device." If Acres wanted to limit the types of table games to only those that are "highly automated," it could have done so by inserting appropriate language into the specification, which would have alerted one skilled in the art to the definition it now urges upon this Court. The specification, however, contains no such language.
- 27. Moreover, the definition of "gaming devices" set forth in the patent specification is not affected by the sentence in the patent specification stating that "the system supports any gaming device providing traditional discrete connections, e.g., coins-in, coins-out, etc., as well as those having serial interfaces, as described below." First, the sentence includes the phrase "supports any gaming device providing." A sentence cannot define a term if the sentence itself uses the term. Second, as is plain from a fair reading of the sentence, the sentence only describes aspects of "gaming devices" that might be used in practicing the invention -- it does not define the term

"gaming devices." It merely states that the system can use gaming devices "providing traditional discrete connections" or "having serial interfaces." Moreover, that "gaming devices included as part of the invention" will generally have "traditional discrete connections" or "serial interfaces" is addressed by the patent claim in that claim 1 of the '961 patent provides for a "method of operating gaming devices configured to play a preselected game interconnected by a computer network to a host computer..." Obviously, any gaming device used in the patented invention will have to have some means by which it can be "interconnected by a computer network to a host computer." (Mikohn Br. at p. 10.)

Acres also argues that the term "gaming device" should be defined according to N.R.S. § 463.0155, which defines "gaming device" as "any equipment or mechanical, electromechanical or electronic contrivance, component or machine used remotely or directly in connection with gaming or any game which affects the result of a wager by determining win or loss." Nowhere does the specification state that the meaning of the term "gaming device" is governed by that statute, or any other statute. "[A] patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning as long as the special definition of the term is clearly stated in the patent specification or file history." Vitronics, 90 F.3d at 1582 (emphasis added). The only evidence relied upon by Acres in support of its argument is expert testimony presented at the Markman hearing. Because the specification unambiguously includes all types of gaming tables within the meaning of the term "gaming devices," the Court will not consider such extrinsic evidence. Moreover, as CDS points out, the definition given by N.R.S. § 463.0155 to the term "gaming device" actually supports CDS and Mikohn's position because it defines that term to

include "any equipment...used directly or remotely in connection with gaming..." Id. (emphasis added). Clearly, a manual table game falls within this definition.

- 29. Finally, Mikohn argues that the "host computer" recited in claim 1 of the '961 patent is a separate and distinct entity from a "gaming device." Acres agrees with Mikohn on this point: "Acres agrees with Mikohn that the "host computer" recited in claim 1 of the '961 patent is not also one of the 'gaming devices' that are separately recited in claim 1." (Acres' Reply Brief Concerning Claim Construction for the '961 and '882 patents (#365) at p. 5.) No additional discussion on this point, therefore, is required.
- Based on the plain language of the specification, the Court agrees with CDS and Mikohn that manual gaming tables are included within the meaning of the term "gaming device." Moreover, the Court finds, based on the plain language of the specification quoted above, that a "gaming device" refers generally to any equipment used in connection with gaming. Finally, the Court agrees with the parties that the "host computer" recited in claim 1 of the '961 patent is not also one of the "gaming devices" that are separately recited in claim 1.

2. "Computer" & "Host Computer"

31. Mikohn and Acres dispute the meaning of the terms "computer" and "host computer" in claim 1 of the '961 patent. Claim 1 recites:

A method of operating gaming devices configured to play a preselected game interconnected by a computer network to a host computer comprising: permitting players to play the preselected game at the gaming devices; paying to each device in accordance with a first payout table after each game; monitoring the activity of the gaming devices over the network;

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detecting the amount of money played on the gaming devices; allocating a predetermined percentage of the money played to a bonus pool;

determining the level of the bonus pool;

activating a bonus payout table in a gaming device after the bonus pool level exceeds a turn-on level;

permitting continued play of the preselected game at the gaming devices; and

paying the gaming-device in accordance with both payout tables after each game for so long as the bonus payout table remains activated.

(961 Pat. at col. 37, l. 63 to col. 38, l. 17.)

Mikohn argues that the term "computer" should be construed to mean "any kind of device 32. capable of processing information to produce a desired result." In addition, Mikohn argues that the term "host computer" should be construed to mean "a controlling computer in a multiple computer operation." Mikohn relies on the dictionary definitions of those terms in support of its proposed constructions. Acres has no particular quarrel with the various dictionary definitions of the term "computer" offered by Mikohn. (Acres' Reply Brief Concerning Claim Construction for the 961 and 882 patents (#365) at p. 5.) Acres does disagree with Mikohn's definition of that term, however, insofar as it relates to the term "host computer." According to Acres, not every device that satisfies the various definitions of "computer" offered by Mikohn could constitute the "host computer." (Id.) Acres argues that, at a minimum, "the host computer must be capable of operating a network of gaming devices to implement the bonusing invention." It is not exactly clear from reading the claim language what attributes the "host computer" must have in order to function according to the claimed invention. Once again, however, the Court need not look far for the answer. Based upon a reading of the specification the Court agrees with Acres' proposed

construction of the term "host computer."

- All of the asserted claims of the patents in suit specify that a "host computer" is used in the bonusing invention. (See '961 Pat., claim 1; '882 Pat., claims 1, 2, 10, 11, 18, 19; '459 Pat., claims 1, 4, 8, 15, 16, 18; '817 Pat., claims 1, 21, 22, 24, 29.) The specification describes uses of the host computer in *implementing the bonsuing invention*. (See e.g., col. 6, 11. 27-29 ("Remote reconfiguration includes sending a reconfiguration command from a host computer to one or more of the gaming devices")); (col. 8, 11. 38-40 ("The module allows the host computer to uniquely identify the gaming device on the network, including the device type").) The specification also gives examples of the types of devices that may be used as the host computer. (See col. 8, 11. 29-32 ("In fact, because the file server 32 is essentially a virtual hard disk for the floor controllers 18 and 32, the floor controllers and the file server can be considered a single host computer for the system 10")); (Acres Br. at p. 70.)
- 34. Clearly, the functions of the "host computer" described in the specification are more sophisticated than Mikohn's broad definition of "any kind of device capable of processing information to produce a desired result." A plain reading of the specification would alert one skilled in the art that the "host computer" described in the patent must be capable of operating a network of gaming devices to implement the bonusing invention. Because the specification is clear, the Court need not consider the extrinsic evidence offered by Mikohn.
- 35. The Court, therefore, construes the term "host computer" consistent with Acres' proposed construction: a computer having the ability to communicate via a network with the gaming devices to implement the bonusing inventions.

3. "Bonus Payout Table"

Mikohn and Acres dispute the meaning of the term "bonus payout table" in claim 1 of the '961 patent. Mikohn argues that the term "bonus payout table" means "a table that associates specific bonus payouts with specific winning combinations on a gaming device." Acres argues that Mikohn's construction of the term "bonus payout table" improperly limits the meaning of the term "to just one of a number of different ways of accomplishing a 'bonus payout table.'" According to Acres, the term "bonus payout table" means "a system for determining the amount and timing or conditions precedent to a bonus payment."

The term "bonus payout table" is not defined in claim 1 of the '961 patent. The Court, therefore, must look to intrinsic evidence for guidance. In the specification, the term "bonus payout table" appears in only one place. Under the heading "Serial Machine Interface," the specification uses the term "bonus payout table" in describing how a data communication node ("DCN") controller communicates reconfiguration commands to a machine. The specification provides, in relevant part:

The serial machine interface is the means by which the DCN controller communicates certain reconfiguration data, referred to as reconfiguration commands to the machine. These reconfiguration commands cause the machines to activate a *bonus payout table* to allow the machine to append bonus payments to their standard jackpot payouts, as specified by their payout table, during certain bonus activities.

('961 Pat. at col. 9, 11. 60-67) (emphasis added). As can be seen from the above-quoted language, the specification does not define the term "bonus payout table;" rather, it merely states what the bonus payout table accomplishes once it is activated by a reconfiguration command. The Court,

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therefore, must construe the term "bonus payout table" according to its ordinary meaning. York Products, 99 F.3d at 1572 (Fed.Cir.1996) ("Without an express intent to impart a novel meaning to claim terms, an inventor's claim terms take on their ordinary meaning"). The Court is permitted to review dictionary definitions to determine the ordinary meaning of the term "bonus payout table." See, e.g., id.

38. The term "table" is defined in the ILLUSTRATED DICTIONARY OF MICROCOMPUTERS, Third edition (1990), p. 387 as "[a] graphically arranged collection of data in which each item is uniquely identified by a label or position relative to other items. The items are usually laid out in rows and columns for reference or stored in memory as an array." The term is defined in the MICROSOFT COMPUTER DICTIONARY, Fourth edition (1999), p. 434 as follows:

In programming, a data structure usually consisting of a list of entries, each entry being identified by a unique key and containing a set of related values. A table is often implemented as an array of records, a linked list, or (in more primitive languages) several arrays of different data types, all using a common indexing scheme.

The OXFORD DICTIONARY OF COMPUTING, Fourth edition (1997), p. 493, provides the following definition of the term "table":

A collection of records. Each record may store information associated with a key by which specific records are found, or the records may be arranged in an array so that the index is the key. In commercial applications the word table is often used as a synonym for matrix or array.

Based on these definitions, the Court agrees with Mikohn that the term "table" means "a collection of data in which each item is uniquely identified by a label or position relative to other items."

(Mikohn Br. at p. 17.)

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Mikohn contends that the term "payout table" is a term of art that means "a table in a gaming device that is referenced in order to determine the appropriate payout for a particular winning combination." Acres argues that the term means "anything that associates a specific game outcome with a specific award amount." Because this term cannot be readily defined by the intrinsic evidence, the Court is permitted to rely on the prior art proffered by Mikohn in construing this term:

[A] court in its discretion may admit and rely on prior art proffered by one of the parties, whether or not cited in the specification or the file history. This prior art can often help to demonstrate how a disputed term is used by those skilled in the art. Such art may make it unnecessary to rely on expert testimony and may save much trial time. As compared to expert testimony, which often only indicates what a particular expert believes a term means, prior art references may also be more indicative of what all those skilled in the art generally believe a certain term means.

Vitronics, 90 F.3d at 1584 (emphasis added).

40. The definition of a "payout table" as a table that relates payout to game outcome is repeatedly and consistently used in relevant literature. (See, e.g., U.S. Patent No. 5,019,973, filed March 8, 1989, to Wilcox et al. ("The game is won or lost when the card hand as configured is compared to the ranking of card hands on the payout table, which also determines the amount of the payout, if any")(emphasis added)(Exh. 8 at Abstract, Il. 12-15))⁵; (U.S. Patent No. 5,255,915, filed October 23, 1991, to Miller ("The method comprises first providing a payout table defining

⁵ All exhibits cited in this paragraph can be found in Mikohn Gaming Corporation's Extrinsic Evidence Filed in Support of its Proposed Claim Constructions (#355).

a predetermined set of winning hands of different ranks and payout values selected from a single deck of cards, each card having a different face value and suit, with at least some of the winning hands being combinations of six cards, with the remaining hands from the deck not included within the predetermined set of winning hands not having any payout value") (emphasis added) (Exh. 9 at col.1, l. 64 to col. 2, l. 4)); (U.S. Patent No. 5,356,140, filed April 14, 1993, to Dabrowski et al. ("After the draw has occurred, the player is paid an amount based on the number of coins wagered and reflecting whatever winning combination he has achieved according to the payout table at the top of the display screen") (emphasis added) (Exh. 10 at col.5, ll. 35-39)); (U.S. Patent No. 5,401,024, filed May 9, 1994, to Simunek ("A typical payout table for use with this embodiment is listed below wherein each video reel contains three characters, namely a "7," a bar and a cherry. The player is paid a certain amount per character obtained after the reels are spun, the amount increasing for increasing numbers of matched spots") (emphasis added) (Exh. 11 at col. 4, ll. 1-6)); (U.S. Patent No. 5,449,173, filed September 26, 1994, to Thomas et al. ("Based on the number selected, a payout table, stored in the ROM memory 34 (FIG.3), is consulted to determine how many additional coins are to be paid out")(emphasis added)(Exh.12 at col. 3, ll. 51-53)); (U.S. Patent No. 5,489,101, filed June 6, 1995, to Moody ("A payout table is provided that pays the player various multiples of his wager depending on the rank of poker hand that the player achieves")(emphasis added)(Exh. 13 at col. 2, ll. 26-28)); (U.S. Patent No. 5,531,440, filed September 29, 1994, to Dabrowski et al. ("A payout table is established based on the number of coins or tokens wagered by the player and the type of poker hand achieved" (emphasis added) (Exh. 13 at col. 1, ll. 38-41)); (Mikohn Br. at p. 18.)

The language cited in the above-referenced patents buttresses Mikohn's argument that to one skilled in the art, the term "payout table" means "a table in a gaming device that is referenced in order to determine the appropriate payout for a particular winning combination." Acres, however, points to the mystery jackpot promotion as evidence that a "winning combination" is not necessary to the payment of a bonus. It is true, as previously discussed, that the mystery jackpot promotion is not based on game outcome. However, there is nothing in the patent or prosecution history that states or even suggests that a *bonus payout table* includes a mechanism for paying a mystery jackpot. The Court, therefore, will adopt Mikohn's construction of that term without consideration of the expert testimony offered by Acres in support of its proposed construction.

- With the terms "table" and "payout table" now defined, the Court looks again to the specification to determine the meaning of the term "bonus payout table." In pertinent part, the specification reads: "These reconfiguration commands cause the machines to activate a bonus payout table to allow the machine to append bonus payments to their standard jackpot payouts, as specified by their payout table, during certain bonus activities." ('961 Pat. at col. 9, ll. 60-67) (emphasis added). Based on a plain reading of the specification, the Court agrees with Mikohn that a "bonus payout table" is a table that associates specific bonus payouts with specific winning combinations on a gaming device.
- This construction of the term "bonus payout table" is confirmed by the prosecution history.

 In response to an office action wherein Acres sought to overcome a prior art rejection of claim 1 (which was originally claim 55), Acres stated as follows:

[T]he method of the present invention now includes the limitation of

paying to each gaming device based on a first payout table and paying based on both payout tables after the bonus payout table is activated. Thus, winning combinations occurring multiple times at single preselected device are paid based on both payout tables after the bonus payout table is activated.

(Mikohn's Proposed Claim Construction for U.S. Patent No. 5,655,961(#351), Ex. 4 at p. 11) (emphasis added). Claims may not be construed one way in order to obtain their allowance and then in a different way against an accused infringer. "[T]he prosecution history (or file wrapper) limits the interpretation of the claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." *Standard Oil Co. v. American Cyanamid Co*, 774 F.2d 448, 452 (Fed.Cir.1985). "Other players in the marketplace are entitled to rely on the record made in the Patent Office in determining the meaning and scope of the patent." *Lemelson v. General Mills, Inc.*, 968 F.2d 1202, 1208 (Fed.Cir.1992), *cert denied*, 506 U.S. 1053 (1993); (Mikohn Br. at p. 21.)

Moreover, the one and only example of a "bonus payout table" given by the '961 patent specification is a collection of payout values stored as an array. The '961 patent specification states:

In another embodiment of the bonus time promotion, a bonus amount is awarded in addition to the payout according to the default of the payout schedule of the machine. The amount of the bonus jackpot is specified in subfield (E) of the bonus time data. For example, this bonus time promotion might include five bonus amounts of \$10, \$25, \$50, \$100 and \$500, which is specified by subfield (E). When a player hits a particular jackpot, whichever bonus amount is specified by the bonus amount subfield this amount is automatically paid out in addition to the payout amount determined by the machine's default payout schedule.

('961 Pat. at col. 26, 11. 10-21)(emphasis added); (Mikohn Br. at p. 22.) Thus, the '961 patent

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specification, and the arguments made by Acres to the Patent Office in order to obtain issuance of claim 1, provide further support for the definition of "bonus payout table" proposed by Mikohn.

- Acres argues, however, that the specification uses the term "bonus payout table" and "bonus payout schedule" interchangeably and that, therefore, the term "bonus payout table" should be accorded the broader definition of a "bonus payout schedule." Acres relies on expert testimony in support of its argument. Nevertheless, as Mikohn points out, the specification does not accord the same meaning to "payout table" and "payout schedule." For example, the specification repeatedly states that a "reconfiguration command" reconfigures a gaming device's "payout schedule" while it acknowledges, at the same time, that it cannot reconfigure the gaming device's "payout table." (Compare '961 Pat. at col. 20, ll. 2-4 ("Upon receipt of the reconfiguration command, the gaming device reconfigures its payout schedule") with col. 6, ll. 43 ("The preferred embodiment currently activates only the bonus payout schedule responsive to the reconfiguration command, while not altering the payout table).) Clearly, in the context of the '961 patent, "payout table" and "payout schedules" are accorded different meanings.
- Based on the foregoing, the Court construes the term "bonus payout table" to mean a table, as that term has been previously defined, that associates specific bonus payouts with specific winning combinations on a gaming device.
 - 4. "Activating a Bonus Payout Table in a Gaming Device"
- Mikohn and Acres dispute the meaning of the phrase "activating a bonus payout table in a gaming device" in claim 1 of the '961 patent. Mikohn argues that to "activate" the bonus payout table means "to enable the bonus payout table such that it is referenced each time the gaming device

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is played by the player." In addition, Mikohn argues that the "bonus payout table" must "remain activated on the same gaming device for more than one game." Acres argues that the phrase means "taking an action that permits one or more bonus awards to be paid in accordance with the bonus payout table if specified conditions are met." According to Acres, there is no requirement that the bonus payout table be referenced each time a gaming device is played.

- Mikohn relies primarily on the testimony of its expert in support of its argument that the payout table must be referenced each and every time a gaming device is played. As-Acres points out, however, the specification, although supporting such a construction, contains no language that would limit it solely to this narrow construction. Mikohn's proposed construction would run contrary to the general rule "that the claims of a patent are not limited to the preferred embodiment, unless by their own language." *See Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 973 (Fed.Cir.1999). The Court, therefore, will not read into the patent a requirement that is not supported by the intrinsic evidence.
- The Court does agree, however, with Mikohn insofar as it argues that the bonus payout table must remain activated for more than one game. Although the claim language and specification is unclear on this point, the prosecution history supports such a conclusion. In order to overcome a prior art rejection, Acres added the limitations "permitting continued play of the preselected game at the gaming devices" and "paying the gaming-device in accordance with both payout tables after each game for so long as the bonus payout table remains activated." In the response to the office action wherein these new limitations were added, Acres stated:

[W]hen a bonus payout table is activated in accordance with the

method of the present invention, the game being played at each gaming device continues; there is no cessation of games in progress nor is a different game initiated when the game in progress is complete. Rather, play continues as before at the gaming devices. In addition, the method of the present invention now includes the limitation of paying to each gaming device based on a first payout table and paying based on both payout tables after the bonus payout table is activated

(Mikohn's Proposed Claim Construction for the '961 patent, Ex. 4 at p. 11) (emphasis added); (Mikohn Br. at p. 24.) Based upon this clear evidence, the Court declines to consider the expert testimony offered by Acres in support of its argument to the contrary.

- Acres' argument that the phrase "activating a bonus payout table" means "taking an action that permits one or more bonus awards to be paid in accordance with the bonus payout table if specified conditions are met" will be rejected on the same grounds the Court rejected Acres' proposed construction of the term "bonus payout table." As discussed earlier, the Court construed that term as meaning that bonuses are paid based upon specific winning combinations. The Court, therefore, will not address this point further.
- Finally, Mikohn makes additional arguments regarding the construction of the phrase "activating a bonus payout table" that were not addressed by Acres. First, Mikohn argues that the bonus payout table must exist on the gaming device prior to its being "activated." Claim 1 of the '961 patent describes "activating a bonus payout table *in* a gaming device after the bonus pool level exceeds a turn on level." (961 Pat. at col. 38, ll. 11-12.) The clear import of that sentence is that the bonus payout table is already existing in the gaming device prior to being "activated." The Court, therefore, agrees with Mikohn on this point. Second, Mikohn argues that the "gaming

device" referred to in the claim element "activating a bonus payout table in a gaming device" is one of the gaming devices playing a preselected game interconnected to the host computer. Support for Mikohn's argument is found in the preamble to claim 1 which claims "[a] method of operating gaming devices configured to play a preselected game interconnected by a computer network to a host computer..." (Id. at col. 37, ll. 62-65.) The Court, therefore, agrees with Mikohn on this additional point.

5. "Preselecting Less Than All"

The parties dispute the meaning of the phrase "preselecting less than all" in claims 1 and 10 of the '882 patent and claim 1 of the '459 patent. The parties agree that the phrase should be construed consistently throughout the patents in suit. The parties cite primarily to claim 1 of the '459 patent in their briefs. That claim recites:

A system for operating a plurality of gaming devices, the system comprising:

a host computer, said host computer including means for generating a reconfiguration command;

a user-operated input device connected to said host computer;

a network interconnecting the gaming devices to the host computer; means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device;

means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices;

means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and

means within each gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command.

('459 Pat. at col. 37, 1. 60 to col. 38, 1. 14) (emphasis added).

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- Mikohn argues that the phrase "preselecting less than all" means "the capability of the casino to pick out the machines that will be used in a given promotion." CDS argues that the phrase means "selecting, i.e., determining which of the interconnected gaming devices will participate in the method being claimed." Acres argues the phrase should be construed to mean "that some, but not all, of the gaming devices are associated together."
- The term "preselecting" is not used in the specification. Instead, the specification repeatedly uses the term "select." The dictionary definition of "select" is "to pick out from among several" or to single "out in preference." WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY (1984), p. 1057. The dictionary definition of "preselecting" is "to select beforehand." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (1986), p. 1793. No language in the specification contravenes the plain meaning of those terms as defined above. Reading the plain meaning of those terms into the phrase "preselecting less than all of the gaming devices" leads to the construction of that phrase as follows: to pick out beforehand from among the gaming devices some, but not all, of the gaming devices to participate in the method being claimed.
- Mikohn and Acres further dispute whether the "preselecting less than all" step is separate and distinct from the step of determining whether a particular player's activities on a gaming device have met certain preselected eligibility criteria. Acres argues that the specification does not require such a distinction and that the "preselecting less than all" function is satisfied by the step of determining whether a player's activities on a gaming device meet certain preselected eligibility criteria. Mikohn argues that the two steps are separate and distinct and that, therefore, the step of determining eligibility does not satisfy the "preselecting less than all" function. According to

Mikohn, the function of "preselecting less than all" must occur before the bonus eligibility criteria is set. Based upon a review of the specification and prosecution history, the Court agrees with Mikohn.

56. The specification describes the following system for operating networked gaming devices:

A system for operating networked gaming devices is described. The system according to the invention allows a casino in which the system is installed to run promotions or bonuses on any properly equipped gaming machines while simultaneously gathering player and tracking and accounting data from all machines.

('961 Pat. at col. 2, ll. 45-50); (Mikohn Br. at p. 27.)

- 57. The system allows the *casino operator* to "select" which gaming devices to link to a specific promotion: "The system provides the capability for *the casino to select* which of the plurality of machines are used in any given promotion. The system further allows any number of different promotions to operate simultaneously." ('961 Pat. at col., ll. 50-53) (emphasis added); (Mikohn Br. at p. 27.)
- It is, *after* the casino has selected "which of the plurality of machines" are to be used in a specific promotion, that the system sends a "reconfiguration command" to the selected gaming devices:

Each promotion involves sending a reconfiguration command from the floor controller to a gaming device that has been selected to be part of a given promotion over the associated network. Upon receipt of the reconfiguration command, the gaming device reconfigures its payout schedule in accordance with the received reconfiguration command.

('961 Pat. at col. 2, ll. 61-67) (emphasis added); (Mikohn Br. at p. 28.)

As the specification makes plain, it is this "reconfiguration command" that sets the bonusing eligibility criteria in each of the gaming devices. The specification defines a "reconfiguration command" as a command sent the gaming device that contains "reconfiguration data." The specification states:

The first step of processing this type of message is for the DCN to determine what type of data is included in the message. [T]here are three types of data that can be included in this message type: a reconfiguration command, card data, or other minor data. The DCN makes this determination...by analyzing one of the bytes in the data packet of the message. This byte will be referred to herein as the command byte. If the command byte indicates that the message contains reconfiguration data, i.e., the command byte equals a reconfiguration command, the DCN stores the reconfiguration data in a predefined data structure in memory.

('961 Pat. at col. 25, ll. 12-23) (emphasis added); (Mikohn Br. at p. 28.)

The preferred "reconfiguration data structure" has three basic fields: (1) bonus type field; (2) mystery jackpot data field; and (3) bonus time data field. ('961 Pat. at col. 25, ll. 25-47.) The "bonus time data" field includes a subfield (D) specifying "Minimum Activity Level." (Id. at col. 25, l. 37 and at col. 26, ll. 1-10.) The specification expressly provides that this subfield "can be used to specify the minimum activity level required by the player in order to be eligible for the bonus time jackpot." (Id. at col. 26, ll. 3-5.) Given that in the preferred embodiment of the patent a gaming device must be "selected" for participation in a given promotion *before* a "reconfiguration command" is sent to that device, it is clear that determining whether a player has met predefined eligibility criteria cannot be and is not the same as "preselecting less than all" the gaming devices.

See Vitronics, 90 F.3d at 1583-84 (noting that claim interpretations excluding the preferred

embodiment are heavily disfavored).

- Moreover, the plain language of claim 1 of the '459 patent further demonstrates that the reconfiguration command is sent to a gaming device only after the gaming device has been selected. One of the limitations set forth in claim 1 is: "means within the computer for transmitting the reconfiguration command to one of the *preselected* gaming devices." ('459 Pat. at col. 38, 11. 4-6) (emphasis added). The clear import of this language is that the reconfiguration command is transmitted to a gaming machine that has already been *preselected*, which means that the preselection *precedes* the reconfiguration step. (Mikohn Br. at p. 29.)
- Additional support for Mikohn's position is found in the specification. As already mentioned, while the term "preselecting" is not found in the specification, Acres makes frequent use of the terms "select" and "selected" in describing its purported invention. Dispositively, Acres' only use of those terms is to describe a casino's picking particular gaming machines to be later reconfigured for bonus play. (See '961 Pat. at col. 2, ll. 50-52 ("The system provides the capability for the casino to select which of the plurality of machines are used in any given promotion") (emphasis added)); (col. 2, ll. 61-64 ("Each promotion involves sending a reconfiguration command from the floor controller to a gaming device that has been selected to be part of a given promotion over the associated network")(emphasis added)); (col. 18, ll. 63-65 ("In addition, the floor controller is responsible for transmitting a reconfiguration command to a selected one or more of the gaming devices during certain bonus conditions") (emphasis added)); (col. 19, ll. 61-63 ("The system provides the capability for the casino to select which of the plurality of machines are used in any given promotion") (emphasis added)); (col. 19, l. 66 to col. 20, l. 2 ("Each promotion

involves sending a reconfiguration command from the floor controller to a gaming device that has been selected to be part of a given promotion over the associated network")(emphasis added)); col. 36, ll. 5-12 ("Another reconfiguration command allows any number of machines on the network to be combined in a common jackpot having a common jackpot payout schedule, wherein the reconfiguration command reconfigures the selected machines to payout in accordance with the common jackpot payout schedule. In this case, the reconfiguration message would be queued up for each of the selected machines to be combined in a common jackpot")(emphasis added). In contrast, where discussing reconfiguration commands that set standards for minimum play at the "gaming devices," the patent specification discusses "conditions under which the player is eligible for this bonus time jackpot award." (Id. at col. 26, ll. 8-10) (emphasis added). Clearly, player eligibility is a completely different concept from "preselecting less than all of the gaming devices." Further, nowhere in the patent specification is it stated or implied that a casino operator can change player eligibility standards with a user-effected action at the input device of a host computer. (Mikohn Br. at p. 29.)

Moreover, the prosecution history of the '459 patent provides further support for Mikohn's argument. The original patent application upon which the '459 patent is based was filed with the U.S. Patent Office on October 12, 1994. It included 61 claims. A discrete group of those claims was specifically directed to "selecting" gaming devices for purposes of sending a reconfiguration command. A second discrete group of claims was specifically directed to "determining" whether a-particular player satisfied specified eligibility criteria. As is plain from a comparison of these original claims, Acres was using the term "selecting" to mean something entirely different than the

term "determining." (*Compare* original claims 1, 9, 10 (using the term "selecting") with (original claims 24, 26, 27 (using the term "determining") at Mikohn's Proposed Claim Construction for the '459 patent (#350), Ex. 1 at pp. 71-76.)

64. Finally, CDS and Acres argue over whether the gaming devices that are *not preselected* continue to function as stand-alone games. CDS argues that no such requirement for "preselection" is stated by the claim language or the specification. Acres argues, however, that one skilled in the art would understand that a gaming device that is not preselected to participate in a bonusing promotion may still function as either a stand-alone game or as a member of other preselected groups of linked games. The Court agrees with CDS that neither the claim language nor the specification state this as a requirement for "preselection." Accordingly, the Court will not graft onto the claim the extra limitation for "preselection" offered by Acres.

6. "Responsive to User-Effected Action"

Mikohn and Acres also dispute the meaning of the phrase "responsive to user-effected action" in claims 1 and 10 of the '882 patent and claim 1 of the '459 patent. Claim 1 of the '459 patent, for example, reads in relevant part: "means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device." ('459 Pat. at col. 38, Il. 1-3.) The parties agree generally that the claims involve a casino operator at the host computer who selects gaming devices by typing in the address of each selected gaming device. Mikohn, relying on the meaning of the term "responsive," argues that the phrase also means that the act of preselection must be an *immediate and direct result* of the user-effected action. Acres argues that nothing in the specification or the claims of the patents in suit would convey to

a person skilled in the art the meaning Mikohn proposes. Acres argues that one skilled in the art would understand that "responsive" simply conveys the concept of "in response to," without any limitation on the timing of the response and without any requirement that the preselection be responsive solely to the entering of data by the casino.

Nothing in the claim language indicates that the term "responsive" should be read contrary to its ordinary meaning. The ordinary meaning of the term "responsive" simply means "in response to." The term "response" simply means something done in "answer" to, a "reply" or a "reaction." WEBSTER'S NEW WORLD DICTIONARY, Second edition (1972), p. 1211. The ordinary meaning of the term "response" or "responsive" does not include within its definition any time limit requirement. Mikohn provides no evidence supporting its claim that the act of "preselection" must be a direct and immediate result of the entering of data by the casino. The Court, therefore, will not alter the plain meaning the term "responsive" to include a time limitation requirement.

7. "Reconfiguration Command"

of the '459 patent. The full text of that claim is set forth above. The claim describes, in pertinent part, a system in which a "reconfiguration command" is sent to a preselected gaming device which, upon receiving the "reconfiguration command," reconfigures the gaming device, causing the gaming device to pay a bonus in accordance with the received "reconfiguration command." ('459 Pat. at col. 37, 1. 60 to col. 38, 1. 14.) The parties appear to agree on the general definition of "reconfiguration command." Mikohn argues, based upon the plain meaning of "configure," that a "reconfiguration command" is a command that rearranges the previous configuration of the

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gaming device. Acres, in not so different words, contends that a "reconfiguration command" is a command that causes a gaming device to be reconfigured. The Court agrees with these general definitions and, in the interest of clarity, will adopt the general construction of that term as proposed by Mikohn: a command that rearranges the previous configuration of the gaming device. However, the dispute does not end here.

The crux of the dispute between Mikohn and Acres is whether a "pay command" is a "reconfiguration command" as described by the patent. Mikohn argues that a simple "pay command," which causes a gaming device to pay a specified amount, cannot be included within the definition of a "reconfiguration command" because "pay commands" do not reconfigure the gaming device to which it is sent. Acres argues that the specification expressly defines "reconfiguration commands" to include "pay commands." In particular, the parties dispute whether one skilled in the art would understand that the reconfiguration commands listed in Table 1 of the specification are types of pay commands. Table 1 reads as follows:

Table 1-Examples of Reconfiguration Commands

- 1. Bonus Pay From Hopper (Coin Format)
- 2. Bonus Pay to Credit Meter (Coin Format)
- 3. Bonus Pay from Hopper (Dollar Format)
- 4. Bonus Pay To Credit Meter (Dollar Format)5. Add Non-cash outable credits to Game
- 6. Begin Double Jackpot Time
- 7. Stop Double Jackpot Time

('961 Pat. at col. 23, ll. 36-45.)

Acres, relying on the testimony of its expert, argues that one skilled in the art would understand the above examples to be types of pay commands. Mikohn's expert disagrees, stating

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that "pay commands" are never referred to as "reconfiguration commands." However, the Court need not rely on the testimony of these experts.

70. In response to an office action wherein Acres sought to overcome an obviousness rejection for claim 1 (which was originally claim 28), Acres stated as follows:

Claim 28 is also amended to further define the means within the gaming device for reconfiguring the gaming device as causing the gaming device to pay a bonus. This makes clear that the reconfiguration relates to a bonus award over and above any regular jackpot awarded by the regulated schedule in the gaming device. This distinguishes from Tracy in which [a] single gaming machine responds to payout and control signal information from a progressive controller dedicated to a bank of machines by making a required payout of a progressive jackpot after a jackpot is detected at the gaming device.

(CDS Post Hearing Appendix, Volume 2 at Ex. ZZ, pp. 217-18) (emphasis added). It is clear from the above history that Acres was using the term "reconfiguring" to mean changing the mode of the gaming device to pay out extra money it would not have paid in its previous standard jackpot mode. In other words, Acres was distinguishing "reconfiguration commands," which changes the mode of the gaming device to cause the payment of a bonus, from standard "pay commands," which cause the payment of standard jackpots. The Court, therefore, agrees with Mikohn that simple "pay commands" are not "reconfiguration commands."

71. In addition, the Court finds that the general definition given to the term "reconfiguration command" above should be narrowed in light of the prosecution history and plain language of the claim itself. The Court, therefore, adopts the following construction of the term "reconfiguration command": a command that rearranges the previous configuration of the gaming device so that the

8. "Command"

- 72. The parties dispute the meaning of the term "command" in claims 1 and 10 of the '882 patent and claims 1, 21, 22 and 24 of the '817 patent. CDS and Mikohn argue that the term "command" always refers to "reconfiguration commands." Acres argues that nothing in the claims requires that the claimed "command" must necessarily be a reconfiguration command. According to Acres, a reconfiguration command is just one of many commands and messages described in the patent.
- As discussed above, the Court construes the term "reconfiguration command" to mean a 73. command that rearranges the previous configuration of the gaming device so that the gaming device pays out extra money, i.e. a bonus, it would not have paid in its previous configuration. The issue presented here is whether the term "command," as that term appears in the claims in dispute, means a "reconfiguration command." A plain reading of the claim language reveals that it does. (See '882 Pat. at col. 38, ll. 8-24 (Claim 1 describing method in which command is issued over the network to preselected gaming devices in response to initiation of the bonus play period and "paying a bonus at each of said preselected gaming devices in accordance with the command"); at col. 39 at 9-26 (Claim 10 describing method in which command is issued over the network "to one of preselected gaming devices responsive to a predetermined event; and paying at said one gaming device in accordance with the command"); '817 Pat. at col. 38, ll. 27-47 (Claim 1 describing method in which command is issued over the network and paying a bonus in response to receiving a pay command); at col. 40, 11. 33-49 (Claim 21 describing method in which command is issued over the network to cause a bonus to be paid upon the occurrence of a predetermined event and "paying the

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bonus via the gaming device responsive to receipt of the pay command"); at col. 40, Il. 50-62 (Claim 22 describing method in which a command is issued over the network to cause a bonus to be paid upon the occurrence of a predetermined event); at col. 41, 1. 13 to col. 42, 1. 8) (Claim 24 describing method in which a pay command is issued to the gaming device upon the occurrence of the predetermined event and "paying the bonus via the gaming device responsive to receipt of the pay command").) "[A] court must presume that the terms in the claim mean what they say" unless the "language of the claims invites reference to" other sources. *Johnson Worldwide*; 175 F.3d at 989-90. Here, the claims in dispute clearly use the term "command" to mean a "reconfiguration command" and, therefore, do not invite reference to the specification or any other source. Accordingly, the Court will construe the term "command" as it is plainly used in the claims themselves: a command, as that term is used in claims 1 and 10 of the '882 patent and claims 1, 21, 22 and 24 of the '817 patent, means a reconfiguration command.

9. "Data Establishing Criteria"

Mikohn and Acres dispute the meaning of the phrase "data establishing criteria" in claims 1, 21 and 24 of the '817 patent. The parties seek uniform construction of this phrase throughout the three claims. In claim 1 of the '817 patent, for example, the claim describes "issuing a command over the network *including data establishing criteria* to cause a bonus to be paid from the pool via one of said selected gaming devices upon the occurrence of a predetermined event." ('817 Pat. at col. 38, 11. 34-37) (emphasis added). The crux of the dispute between the parties is over the term "criteria." While both parties agree that the phrase "data establishing criteria" refers to information that sets up standards, rules or tests to determine whether a bonus is paid, Acres argues

that the phrase may also refer to *one rule or standard*. Mikohn disagrees, arguing that "criteria," by its ordinary meaning, is plural for the term "criterion." Acres contends, however, that one skilled in the art would understand that the term "criteria" is widely used in the singular form.

- The general rule is "that terms in the claim are to be given their ordinary and accustomed meaning." *Johnson Worldwide*, 175 F.3d at 989. In other words, "a court must presume that the terms in the claim mean what they say..." *Id*. Only when a term used in a claim invites reference to other sources for clarification should a court look beyond the claim language to seek a definition other than its plain meaning. *Id*. at 989-90. Here, Acres chose to use the term "criteria" instead of the singular "criterion" in describing claims 1, 21 and 24 of the '817 patent. The ordinary use of the term "criteria" is in the plural. Because the claim language is clear, the Court need not look to other sources to define this term.
 - 10. "Associating Each Gaming Device with a Unique Address Code"
- 76. CDS and Acres dispute the meaning of the phrase "associating each gaming device with a unique address code" in claim 10 of the '882 patent. The full text of that claim is set forth above. In pertinent part, that claim describes:

A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising: associating each gaming device with a *unique address code*; preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective *associated address codes*;

('882 Pat. at col. 39, ll. 9-19) (emphasis added).

77. CDS argues that the phrase "associating each gaming device with a unique address code"

means that "each gaming device is connected to a unique address code that is unique among the entire network of gaming devices." In other words, each gaming device has its own unique identification number, independent of the network connections of which it is a part. Acres argues that CDS' proposed construction describes only one among many possible techniques for associating each gaming device with a unique address code. Acres argues that another technique described by the patent is a technique in which the gaming devices are distinctly addressed in terms of their network connections--i.e., gaming device #13 connected to controller #3 is distinct from gaming device #13 connected to controller #4. Under this example, the uniqueness of each gaming devices' address depends on the controller of which it is a part. Acres argues, therefore, that the phrase "associating each gaming device with a unique address code" should be construed to mean that each one of the "gaming devices has its own address distinct from the address of any other of those gaming devices." The Court agrees with Acres for the following reasons:

Although the claim language is unclear on this point, the specification describes in detail how the preferred embodiment of the bonusing invention assigns a unique address to each gaming device. See generally '961 Pat. at col. 34, l. 1 to col. 35, l. 4 (titled "Assigning Gaming Device Addresses"). The specification explains that in the preferred embodiment the gaming devices connected to a particular floor controller are each assigned a unique one-byte address consisting of a shorthand representation of the four-byte unique identification number associated with the Data Communication Node ("DCN") contained in each gaming device. (See id. at col. 34, ll. 2-15.) Because a one-byte address allows up to 256 unique addresses, up to 256 gaming devices connected to a particular floor controller can be associated with a unique address code:

As described above, in the preferred embodiment of the invention, the floor controller uses a shorthand token representation of the DCN's unique identification number to address the DCN. In the preferred embodiment, a singe byte address is used to address is used to address a DCN on any given current loop. This one-byte address allows up to 256 DCNs to be supported on any given current loop network.

(Id. at col. 34, 11. 2-8); (Acres Br. p. 35 at ¶ 73.)

- The system described in the patent can include multiple floor controllers, with each floor controller connected to multiple current loop networks, and with each current loop network connecting multiple gaming devices, to support as many as 8,192 separate gaming devices in total. (See '961 Pat. at col. 7, ll. 1-7; col. 19, ll. 1-11.) Together with identification of the current loop network, the single byte address providing 256 distinct values can then uniquely identify as many as 8192 different gaming devices. (Mikohn Br. p. 36 at ¶ 74.)
- 80. CDS contends that for purposes of implementing the bonusing invention, one skilled in the art would understand that the specification only describes a technique in which the four-byte identification number assigned to each DCN is associated with each gaming device as a unique address code. The specification explains, however, that this technique is cumbersome because the use of a four-byte address instead of a one-byte address creates unnecessary traffic on the network:

In the preferred embodiment, only 64 such DCNs are connected to a single current loop network and therefore the singe byte address is more than adequate. The single byte address substantially reduces the amount of traffic on the current loop network by reducing the number of bytes from four in the unique identification number to one for the shorthand token representation.

('961 Pat. at col. 34, Il. 8-15); (Acres Br. p. 36 at ¶ 75.) Thus, the specification is clear that the

 invention is not limited solely to the single addressing technique proposed by CDS.

81. CDS argues, however, that the meaning Acres attaches to the phrase "associating each gaming device with a unique address code" does not make sense when it is read in connection with the following portion of the specification:

The personality board...provides a unique identification number that the host computer can use to uniquely address the gaming device. The personality board allows the devices to be readily removed and reinstalled in the network without any manual reconfiguration by the operator, such as resetting dip switches.

('961 Pat. at col. 16, ll. 41-49) (emphasis added). CDS contends that under Acres' definition of the phrase "associating each gaming device with a unique address code," gaming devices could not be removed and reinstalled without manually resetting DIP switches. CDS contends that the gaming devices can be removed and reinstalled without the use of manual DIP switches only if each gaming device has its own unique identification number, independent of the network connections of which it is a part. As Acres points out, however, that portion of the specification discussing the removal and reinstallation of gaming devices without manual reconfiguration describes only one embodiment of the invention. The Court will not limit the scope of the claims to cover just one of the embodiments described in the specification. *See, e.g., Speciality Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed.Cir.1988).

82. CDS's construction of the phrase "associating each gaming device with a unique address code" is limited to just one approach for addressing gaming devices, and improperly ignores other embodiments described in the patent specification. *See Karlin Technologies*, 177 F.3d at 973. Indeed, the claim construction urged by CDS excludes the preferred embodiment described in the

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patent. See Vitronics, 90 F.3d at 1583-84 ("Such an interpretation [excluding the preferred embodiment] is rarely, if ever, correct and would require highly persuasive evidentiary support...").

Accordingly, the Court rejects CDS' proposed construction of that phrase.

11. "Predetermined Event"

CDS and Acres dispute the meaning of the term "predetermined event" in claim 10 of the 83. '882 patent and claim 22 of the '817 patent. Both claims describe a process involving the issuance of a command over the network in response to or upon the occurrence of a "predetermined event," which causes payment. See '882 Pat. at col. 39, ll. 22-26 ("issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and paying at said one gaming device in accordance with the command"); '817 Pat. at col. 40, ll. 60-62 ("issuing a command over the network to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event"). The parties agree generally that a"predetermined event" is an event that is predetermined as to the fulfillment of a time condition or other condition. The parties disagree, however, as to the types of examples that can constitute a "predetermined event." The parties dispute, for example, whether "hitting a jackpot" or "any coin in event" qualifies as a predetermined event. CDS argues that such events do not qualify as "predetermined events" to the extent they are random. CDS argues, for example, that a "coin-in event" would be a "predetermined event" only if it were based on a predetermined number of coinsin. Acres argues that no such requirement exists and that CDS is improperly limiting the term "predetermined event" to exclude events such as coin-in events, jackpot events and bonus pool threshold events.

84. The specification does not specifically define the term "predetermined event." The specification, however, describes "predetermined events" as triggers which are preset:

The floor controller also monitors the system for certain event triggers in step 532. These triggers can be stored in the data base and fetched by the floor controller during its power-up procedures. These triggers indicate if and when certain events occur. Examples of event triggers include: the drop period, the end-of-day, the bonus period, etc. If an event has occurred, the floor controller handles the event in step 534...[One type of event] can be referred to as a bonusing event. The floor controller checks to see whether the event is a bonusing event in step 540. The bonusing events can also be triggered by the time of day. For example, the bonusing event may be triggered from midnight to 4:00 a.m. on weekdays. The bonusing periods can be specified in the data base. If the triggered event is a bonusing event, the floor controller inserts a corresponding reconfiguration message in the output message queue in step 542. The reconfiguration message includes a reconfiguration command that is sent to an appropriate machine. The machine, upon receiving the reconfiguration command, reconfigures its payout schedule in accordance with the received reconfiguration command.

('961 Pat. at col. 35, Il. 26-56) (emphasis added). As can be seen from the specification, the events described are those that are determined in advance of their occurrence. The specification does not include in its discussion of triggering events, events that are random in occurrence. (See id; at col. 35, l. 61 to col. 36, l. 4.) Thus, the Court agrees with CDS that events which are random cannot be "predetermined events" as that term is described in the specification. Moreover, the plain meaning of the term "predetermine" supports such a view. The term "predetermine" is defined as "[t]o determine, decide, or establish ahead of time." WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY (1984), p. 926. Clearly, an event that is random cannot be determined, decided or established in advance of its occurrence. The Court, therefore, will construe

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the term "predetermined event" as follows: any non-random event that is determined, decided or established in advance of its occurrence.

85. The Court will not, however, decide whether certain coin-in events, jackpot events, bonus threshold events, or other examples listed by the parties can be "predetermined events." That task is not before the Court. The only task before the Court is determining the meaning of the term "predetermined event." Whether certain examples are "predetermined events" touches upon issues of actual infringement. That presents issues of fact, not questions of law to be decided in this Court's interpretation of the disputed claims of the patent.

12. "To One Of"

86. CDS and Acres dispute the meaning of the phrase "to one of" in claim 10 of the '882 patent. Claim 10 recites, in pertinent part: "issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and paying at said one gaming device in accordance with the command." ('882 Pat. at col. 39, ll. 22-26) (emphasis added). CDS argues that the phrase "to one of" means "to one of" and does not mean "to more than one of." That is, CDS contends that the command that is issued over the network can only be sent to one, and only one, gaming device. Acres argues, however, that one skilled in the art would understand that "to one of" can mean more than one. In other words, Acres contends that the phrase means that the command described in claim 10 is issued to at least one gaming device but may be issued to more than one gaming device. The Court agrees with CDS on this point.

⁶ Indeed, the Court does not have sufficient evidence before it to determine whether each and every example disputed by the parties is a "predetermined event."

at 619-20, which are generally given their customary and ordinary meaning. *Vitronics*, 90 F.3d at 1582. Here, the claim specifically states that the command is issued to *one* gaming device. Nothing in the language of the claim itself supports Acres' view that the command is issued to *more than one* gaming device. In addition, the last limitation of the claim refers to paying at *said one* gaming device. The reference to gaming device in the singular bolsters the interpretation that "to one of said preselected gaming devices" means only one gaming device. *See WMS Gaming Inc. v. International Game Tech.*, 184 F.3d 1339, 1350 (Fed.Cir.1999). Moreover, nothing in the specification supports Acres' view that the command discussed in claim 10 can be issued to more than one gaming device. In such situations, a court should construe a phrase according to its plain meaning:

The plain meaning of 'selecting one of said...numbers' is selecting a single number, not a combination of numbers. In addition, the last

The plain meaning of 'selecting one of said...numbers' is selecting a single number, not a combination of numbers. In addition, the last limitation of the claim refers to 'said selected number.' This reference to 'number' in the singular sense bolsters the interpretation that 'selecting one of said...numbers' is limited to selecting a single number. Nothing in the written description, drawings, or prosecution history indicates that the phrases 'one of said...numbers' or 'said selected number' should be given anything other than their ordinary meaning.

Id.(internal citation omitted). The Court, therefore, will construe the phrase "to one of," as that phrase is used in claim 10 of the '882 patent, according to its plain meaning: the command that is issued over the network can be sent to one, and only one, gaming device.

- 13. "Paying At Said One Gaming Device"
- 88. CDS and Acres dispute the meaning of the phrase "paying at one said gaming device in

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accordance with the command" in claim 10 of the '882 patent. As discussed above, claim 10 describes: "issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and paying at said one gaming device in accordance with the command." ('882 Pat. at col. 39, ll. 22-26) (emphasis added). CDS argues that the phrase "paying at said one gaming device" means that payment is made at the gaming device that receives the command. Acres contends that the phrase means that "payment must be made at one gaming device, but can be made at more than one gaming device, depending on the content of the command." The Court disagrees with Acres for the same reasons that were given in the preceding section. The claim language clearly addresses the gaming device in the singular. Moreover, there is nothing in the specification that indicates the inventor intended to graft any unique meaning on to the plain meaning of the phrase "at said one gaming device." The Court, therefore, will construe the phrase to mean what it says: payment is made at the gaming device that receives the command. CDS also argues that the phrase "paying at said one gaming device" means that payment is 89. made at the location of the gaming device. Under CDS' proposed construction, "payment can be made by a dealer, or by the machine, and the payment can be in the form of coins, chips, credits, or a receipt redeemable for compensation, as long as the transaction occurs at the gaming device." Acres contends that the phrase means that "payment must be automatic, i.e, made by the gaming device itself as opposed to manual payment by a person." The issue, therefore, is whether the term "at" is used in claim 10 to mean "payment by the gaming device" or "payment at the physical location of the gaming device."

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The patent's intended meaning for the term "at" is not clear from a reading of the claim

language itself. Indeed, dictionary definitions for the term "at" could support either party's view. Compare WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY(1984), p. 134 at 1a ("In the location of") with id. at 9 ("By way of: Through"). Any ambiguity, however, is cleared upon reading the specification.

The specification reveals that "payments at the gaming device" refers to automated payments made by the gaming device. For example, the specification discusses that manual payment of bonus awards is cumbersome and inefficient and that the invention fills a need for automated payment of bonus awards:

An example of such bonsuses include a "double jackpot" wherein a player hitting a jackpot is paid double the jackpot amount. Currently this is implemented by having an attendant manually payout the additional payout amount. This manual technique, however, is cumbersome and inefficient to administer because an attendant must be constantly supervising the bonusing gaming devices. Accordingly, a need remains for an automated method and apparatus to provide bonusing for gaming devices.

('961 Pat. at col. 2, Il. 9-18) (emphasis added); (Acres Br. p. 40 at ¶ 82.) In addition, the specification discusses how bonuses awarded are "automatically paid out in addition to the payout amount determined by the machine's default payout schedule." (See '961 Pat. at col. 26, Il. 16-21.)(emphasis added). Further, the specification discusses "automatic mystery jackpots," which "allow a machine to payout a mystery jackpot even when a jackpot was not won." (See '961 Pat. at col. 36, Il. 26-29) (emphasis added); (Acres Br. p. 41 at ¶ 83.) Clearly, this language would have alerted one skilled in the art that the inventor used the phrase "paying at said one gaming device" to mean automatic payment by the gaming device itself.

14. "Bonus Pool"

CDS and Acres dispute the meaning of the term "bonus pool" in claim 19 of the '882 patent 92. and claim 22 of the '817 patent. Claim 19 is a method claim that is dependent on claim 10. Claim 19 includes all the steps of claim 10 plus the step of "allocating a predetermined percentage of the cumulative amount wagered at all of the preselected gaming devices to a bonus pool and wherein paying at said one gaming device in accordance with the command comprises paying said pool at said one gaming device." ('882 Pat. at col., ll. 41-46)(emphasis added). Claim 22 of the '817 patent describes "allocating a predetermined percentage of the money played to a bonus pool; and issuing a command over the network to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event." ('871 Pat. at col. 40, 11. 58-62) (emphasis added). CDS argues that a "bonus pool" is "an accounting pool created for the purpose of turning bonuses on and off" and cannot mean "a progressive escrow account." CDS further argues that although the claims state that payments are made out of the pool, the specification does not describe this function and that, therefore, this claim is invalid as a matter of law. Acres argues that CDS is reading a narrow interpretation of the term "bonus pool" into the claims. Acres argues that the term "bonus pool" means a "pool for collecting money that may be paid as one or more bonuses." In addition, Acres argues that, for purposes of claim 19 of the '882 patent, the limitation of "paying said pool at said one device" limits the invention of claim 10 "to a progressive jackpot paid to a single player."

93. - The language of the claims is clear. In claim 19 of the '882 patent, the term "bonus pool" is described as a pool that collects money that may be paid as the *entire amount* of the bonus

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collected (See '882 Pat at col., Il. 41-46 ("allocating...percentage...of...amount wagered to a bonus pool and...paying said pool) (emphasis added)). In claim 22 of the '817 patent, however, the term is described as a pool that collects money that may be paid as a portion of the amount of the bonus collected (See '871 Pat. at. col. 40, Il. 58-62. ("allocating...percentage...of...money played to a bonus pool and...cause a bonus to be paid from the pool")(emphasis added).)

Moreover, the Court finds that the specification does discuss paying progressive amounts from the "bonus pool." The specification describes the progressive jackpot promotion which any number of gaming devices may be combined into a progressive jackpot:

Another reconfiguration command allows any number of machines on the network to be combined in a common jackpot having a common jackpot payout schedule, wherein the reconfiguration command reconfigures the selected machines to payout in accordance with the common jackpot payout schedule. In this case, the reconfiguration message would be queued up for each of the selected machines to be combined in a common jackpot. One example of a common jackpot is a progressive jackpot. Unlike the prior art progressive jackpot systems, however, the progressive jackpot according to the invention is not limited to a predetermined number of machines. In the prior art progressive jackpot systems, a bank of machines are connected to a common progressive jackpot controller and only those machines can be included in the progressive jackpot. In contrast, any machine on the network, including those connected to other floor controllers can be combined into a common progressive jackpot.

('961 Pat. at col. 36, 11. 5-22); (Acres Br. p. 25 at ¶ 54.)

The specification describes how the progressive jackpot embodiment described above pays the progressive amount from the "bonus pool." (See '961 Pat. at col. 36, ll. 37-39.) Indeed, the specification discusses payment of progressive bonuses in describing how the bonus pool is managed:

This system also allows for machines connected to different floor controllers to be combined into a single bonusing promotion. In this case, one of the floor controllers assumes primary responsibility for managing the bonus pool while the other floor controllers act as intermediaries between the primary floor controller and the machines connected to the other floor controllers. Thus, the system according to the invention allows for much greater flexibility in running bonusing promotionals that heretofore possible. Prior art systems required certain predetermined machines to be connected into a bank for any given bonus award such as a progressive bonus. The system according to the invention allows any machine in the casino to be combined in a bonus type situation. The system also insures that the bonusing promotionals will operate substantially in the black, i.e., the bonus pool is greater than the bonus payouts.

('961 Pat. at col. 37, 11, 37-52)(emphasis added); (Acres Br. p. 26 at ¶ 55.) The Court finds that the specification would alert one skilled in the art that progressive awards can be paid from the "bonus pool."

- Based on these findings, the Court agrees with Acres insofar as it argues that nothing in the claim language requires narrowing the plain meaning of "bonus pool" to the narrow interpretation proposed by CDS. See Johnson Worldwide, 175 F.3d at 989-90.
- The Court, therefore, makes the following conclusions: First, the Court will adopt the plain meaning of the term "bonus pool." With respect to claim 19 of the '882 patent, the term "bonus pool" means a pool that collects money that may be paid as the entire amount of the bonus collected. With respect to claim 22 of the '817 patent, the term means a pool that collects money that may be paid as a portion of the amount of the bonus collected. Second, the Court concludes that the term "bonus pool" should be construed to include within its meaning a progressive pool.
 - 15. "Issuing a Command to Cause a Bonus to be Paid Upon the Occurrence...

of a Predetermined Event"

2 CDS and Acres dispute the meaning of the phrase "issuing a command to cause a bonus to 98. 3 be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event" in claim 22 of the '817 patent. (See 817 Pat. at col. 40, ll. 50-62.) CDS 5 argues that the phrase means that "the command must cause the bonus to be paid." Acres argues 6 that the phrase means that "the bonus is paid upon the occurrence of the predetermined event." 7 8 The Court finds that the claim language lends support to both parties' proposed 99. 9 constructions. On the one hand, the claim appears to state that the command causes the bonus to 10 be paid. On the other hand, the claim can be read to mean that the bonus is not paid until the 1.1 occurrence of the predetermined event. The Court therefore finds the claim language to be 12 ambiguous. Accordingly, the Court may look to the specification for guidance in interpreting this 13 14 phrase. See Johnson Worldwide, 175 F.3d at 990. 15 The specification provides support for Acres' position. In discussing the implementation of 100. 16 17 18

The specification provides support for Acres' position. In discussing the implementation of "automatic mystery jackpots," for example, the specification provides that a reconfiguration command specifies that a jackpot occurs after the occurrence of a predetermined event: "[T]he reconfiguration command can specify that the mystery jackpot is to occur after a certain number of coins, a certain number of handle pulls, or a variety of other conditions specified by the reconfiguration commands." ('961 Pat. at col. 36, ll. 29-35)(emphasis added). CDS does not cite to any portion of the specification that would support its proposed construction. Accordingly, the Court concludes that the phrase "issuing a command to cause a bonus to be paid upon the occurrence of a predetermined event" means that the bonus is paid upon the occurrence of the

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predetermined event.

RECOMMENDATION

It is the recommendation of the undersigned United States Magistrate Judge that the Court adopt the foregoing findings of fact and conclusions of law.

DATED this 24th day of May, 2000.

LAWRENCE R. LEAVITT UNITED STATES MAGISTRATE JUDGE

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3CHRECK MORRIS 10 BANK OF AMERICA PLAZA 10 SOUTH FOURTH STREET LAS VEGAS, NV B9101 (702) 382-2101 FAX (702) 382-8135 I am an engineer in the field of electronics design. Previously, I was a senior engineer at Intel Corporation, where I specialized in assisting customers of Intel with the design of products and systems utilizing Intel microprocessors and peripherals. Since 1989, I have worked primarily in the casino industry, designing electronic gaming systems and other electronic products associated with the casino industry. Prior to my beginning my work in the gaming industry, I received formal training in both electronics and computers. I have a degree in electronics technology and another in management information systems.

For my work in the casino industry, I have received three United States patents. They include U.S. Patent 5,586,936 ("Automated gaming table tracking system and method therefor"), U.S. Patent No. 5,642,160 ("Digital image capture system for photo identification cards"), U.S. Patent No. 5,550,359 ("Time and attendance system and method therefor").

For purposes of preparing this report, I have reviewed the following documents:

- 1. United States Patent No. 5,655,961;
- 2. United States Patent No. 5,752,882;
- United States Patent No. 5,280,909;
- 4. United States Patent No. 4,652,998;
- 5. A Great Britain patent application entitled "Systems for Playing Games," filed on October 20, 1983 and published on July 10, 1985;
- 6. An SB-2 statement filed by Acres Gaming with the SEC on September 20, 1993.

Claim 10 of the '882 patent reads as follows:

A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:

associating each gaming device with a unique address code;

preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

using the network to track activity of the preselected gaming devices;

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issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and

paying at said one gaming device in accordance with the command.

It appears that, on July 10, 1985, the British patent office published the patent application filed by Mecca Leisure Limited in Great Britain directed to "Systems for Playing A Game." That patent application describes the invention described in claim 10 of the '882 patent.

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More specifically, the Mecca Leisure patent application describes a gaming system that comprises a host computer ("control unit") interconnected to a plurality of gaming devices ("play stations"). The host computer has an input device with which the system operator ("caller") can select less than of the gaming devices for purposes of playing a particular game. Once the system operator selects the gaming devices for participation in the game, the other gaming devices are locked out of the game. As described in the patent application, the game is played over and over until there is a single winner. The host computer then sends a command to the winning device to signify the win and pays credits to the winning device.

Below is a chart that sets forth the elements of claim 10 of the '882 patent on the left and the matching description in the Mecca Leisure patent application on the right.

| '882 Patent, Claim 10 | Mecca Leisure Patent Application, No. GB 2151 054 A |
|--|---|
| A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising: | The Mecca Leisure patent application states that "[t]here is provided a system for playing a game, comprising a central apparatus and a plurality of remote uncommitted programmable apparatuses, each of the remote apparatuses being arranged to receive at least part of a game program from the central apparatus." [1:13-18] |
| | The Mecca Leisure patent application expressly provides that it covers a "system for playing a game comprises a control unit 3 <u>connected</u> to <u>a plurality of play stations</u> 5 by a bus 18." [Abstract.] It further states that "[t]he remote apparatuses, the central apparatus, and the monitors may be <u>connected</u> to a common bus, preferably of the serial data type." [1:130 to 2:1-3] |
| | The patent application specifically states that the control unit "comprises a hand-held control unit 14 for controlling progress of the game." [2:77-78] |
| associating each gaming device with a unique | The patent application expressly states that "[e]ach remote apparatus and monitor will generally have a <u>unique</u> |

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said preselected gaming

devices responsive to a

predetermined event;

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and

box 56 on all of the screens of play stations flashes to signify a claimed win, which means that a command is issued by the control unit to one of the "preselected" play stations to flash the number in the box 56. Each of the "preselected" play stations is responsive to a claim of a winning combination, a predetermined event. The patent application states: "When a winning combination is claimed by operation of one of the call switches 55, the display on the display unit 19 flashes, as does the display of the number in the box 56 on all of the screens of the play stations to signify a claimed win." [4:86-91]

paying at said one gaming device in accordance with the command.

The player at the winning play station is paid by credits at the play station. The screen 50 at each of the play stations shows the credits obtained. The patent application states: "[T]he display provided by all of the play stations 5 has the format shown in Figure 5, this format comprising information which is thus common to all of the play stations. . . . Below this is information concerning the price of each game, the stake paid, and any credits obtained." [3:71-85] In addition, the "control unit performs various 'housekeeping' functions and, in particular, supplies information to a cashier on the screen 11, such as ... the total 'credits' from wins" [4:103-107] Since the control unit is responsible for supplying information regarding "credits from wins," it is clear that it also supplies the play stations with the credit information.

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As such, the system described in the Mecca Leisure patent application is the same as the invention specified in claim 10 of the '882 patent. In addition, the Mecca Leisure patent application describes fully the subject gaming system and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading the Mecca Leisure patent application.

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I have also reviewed United States Patent No. 4,652,998 (the '998 patent) issued to Koza et al. on March 24, 1987 and filed on January 4, 1984. The '998 patent describes a video amusement gaming system with pool prize structures including remote game terminals and a central controller with two-communications between the remote game terminals and the central controller. Prize awards are based upon random shuffling of a set of prize awards among a predetermined pool of plays for each remote game terminal. The shuffling of prizes is based upon a random seed produced either by the

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remote terminal of the central controller or by both. The '998 patent describes the

invention described in claim 10 of the '882 patent.

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| '882 Patent, Claim 10 | U.S. Patent No. 4,652,998 |
|--|--|
| A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising: | The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer The central controller 24 maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4] |
| associating each gaming device with a unique address code; | The '998 patent states: "A polling procedure is utilized, whereby the telephone number of each terminal controller 70 is called in sequence, followed by transfer of data from the central controller 24 or a message from the central controller 24 requesting data." |

[20:58-62]

preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

The '998 patent states: "The central control of the lottery system permits a number of unique system capabilities. One such capability is an electronic market survey. The sophisticated centrally controlled lottery system can draw a random sampling of players who can be asked to participate in the survey. In the electronic marketing survey a free game play is offered on the remote terminal if the player will answer a few, simple market survey questions. This, on a random, or other basis a predetermined number of plays in each mini-pool are selected as market survey free plays. The remote terminal displays on the video monitor the offer of a free game in exchange for answers to the market questions and allows the player to accept or reject the offer. Assuming the offer is accepted the basic questions, preferably yes-no questions, are displayed beginning with marital status, and sex, followed by questions about lottery use, level of education, age, location, etc. The player answers the questions using the player control devices 57. A speech recognition unit is particularly suitable for input of survey answers. This market survey could also be sold to others to permit market surveys relating to other than lottery markets. At the conclusion of the questions, a free game is provided." [22:60-23:15]

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| using the network to track activity of the preselected gaming devices; | The '998 patent states: "The communications medium 22, in which the preferred embodiment is a telephone network, links the remote terminal 20 to the central controller 24 to permit, inter alia, a detailed accounting of terminal activity upon request from the central controller 24." [6:56-7:3] |
|--|---|
| issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and | "At the conclusion of the questions, a free game is provided" |
| paying at said one gaming device in accordance with the command. | "At the conclusion of the questions, a free game is provided." |

As such, the system described in the '998 patent is the same as the invention specified in claim 10 of the '882 patent. In addition, the '882 patent describes fully the subject gaming system and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading the '882 patent.

It also appears that on September 20, 1993, Acres filed an "SB-2" statement with the SEC that described fully the invention described in claim 10 of the '882 Patent. The SB-2 statement describes an Acres gaming system called "Concept III" that comprises "five products," including "casino accounting, player tracking, progressive jackpot systems for table games, progressive jackpot systems for gaming machines, and bonusing systems." As described in the SB-2 statement: "Concept III and its component products are a modular, integrated system. The casino accounting, player tracking and game promotion modules can be purchased and installed individually or as components of an integrated system."

The SB-2 further states that a "Concept III installation includes electronic hardware installed in the slot machines, personal computers that serve as controllers for groups of slot machines, and software to record and analyze data, generate reports to casino management, and operate progressive jackpot and bonusing systems." The SB-2 also explains that "Concept III employs personal computer technology, and is designed to take advantage of future improvements in such technology."

With respect to the Concept III progressive jackpot system for gaming machines product, the SB-2 describes the product as follows:

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0 BANK OF AMERICA PLAZA 10 SOUTH FOURTH STREET LAB YEGAS, NV 89101 (702) 382-2101 FAX (702) 382-8195 A progressive jackpot system links a number of slot machines to generate a collective jackpot. As coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot. Other progressive jackpot systems require a controller to be installed at the same location as the machines that are linked to the jackpot. In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer. This method of programming enables the casino manager to determine which machines are linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot. The flexibility provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions which may be created from time to time.

A chart comparing the content of the SB-2 statement against the elements of Claim 10 of the '882 Patent is set forth below.

| '882 Patent, Claim 10 | SB-2 Statement Filed with SEC on September 20, 1993 |
|--|--|
| A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising: | Acres's SB-2 statement states that "personal computersserve as controllers for groups of slot machines." It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer." |
| associating each gaming device with a unique address code; | Associating each gaming device with a unique address is inherent. The SB-2 statement clearly describes a personal computer networked with a plurality of gaming devices. In any such network system, each device must have a unique address. |
| preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated | Acres's SB-2 statement states that "programming [the Concept III progressive jackpot system remotely from a personal computer] enables the casino manager to determine which machines are linked to the progressive jackpot." |

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| address codes; | |
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| using the network to track activity of the preselected gaming devices; | The tracking of preselected gaming devices is inherent in the statement that "[a]s coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot." |
| issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and | By definition, a "progressive jackpot" is won by a player playing at a "machinelinked to the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." |
| paying at said one gaming device in accordance with the command. | By definition, a "progressive jackpot" is paid to the player who wins the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." |

As of the time it was published in September 1993, the disclosure of the SB-2 was sufficient to enable a person skilled in the art of designing gaming systems to construct a device meeting claim 10 of the '882 patent. It is clear from the SB-2 statement that a computer network is being discussed. Computer networks were well known in the art and once it was determined to build the system, it would be a simple matter of programming to complete it.

Finally, I have also reviewed a "Concept III" brochure that I understand was circulated in the gaming industry. The Concept III brochure teaches the method described in Claim 10 of the '882 patent.

| '882 Patent, Claim 10 | The Concept III Brochure |
|--|--|
| A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising: | The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p. 3] |
| associating each gaming device with a unique address code; | "Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system." |

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| · | [p. 3] |
|---|--|
| preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes; | The Concept III brochure states: "You select which machines are used in which promotions, connect your signage and information displays (if any) and begin operation. Concept III allows any number of different promotions to operate simultaneously." [p. 2] "You simply type in which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc." [p. 3] |
| using the network to track activity of the preselected gaming devices; | "Since Concept III monitors slot activities, it collects all information required for proper slot accounting reports." [p. 4] "Concept III also records how long the customer spends at each machine and records the number of coins won, counts games played and hand paid jackpots won." [p. 5] |
| issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and | "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to pay money from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through displays mounted on the machine." [p.1-2] "AutoScan provides full accounting of bonus payments and requires no human intervention for bonus award payments." [p. 2] |
| paying at said one gaming device in accordance with the command. | "Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts." [p. 2] |

In addition to the above-discussed publications and prior art references, at the time the '882 patent was filed, there were several networked slot accounting and player tracking systems on the market each of which would have met most, if not all, of the claims in the '882 patent. Furthermore, anyone moderately skilled in the art at that time

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As mentioned above, I have also reviewed United States Patent No. 5,655,961. I understand that Acres Gaming asserts that Mikohn's Money Time system infringes claim 9 of that patent and that a pay command made to a slot machine by the Money Time controller is a "reconfiguration command." However, accepting Acres Gaming's position to be correct, claim 9 would be fully described by United States Patent No. 5,280,909 ('909 patent) issued to Tracy on June 25, 1994 and filed on February 6, 1992.

The '909 patent describes a gaming system in which a plurality of gaming machines are provided with an additional progressive jackpot gaming system which allows players on the gaming machines to play for a jackpot provided by the progressive system. The controller of the progressive system generates in random fashion at the beginning of a game cycle a jackpot-win value for the progressive jackpot which is displayed to the players of the gaming machine from the beginning of the game cycle. The controller also randomly generates a parameter for use with unit bet information form the gaming machines in determining a current jackpot value. When the current jackpot value is brought to the jackpot-win value, the gaming machine responsible is the winner of the progressive jackpot. The progressive controller also transmits a signal which is supplied to a winning gaming machine and causes the machine to make the jackpot payout.

Claim 9 of the '961 patent includes "sending the reconfiguration command after the bonus pool level exceeds a turn-on level." The Tracy patent states as follows:

"When a time is reached in which the unit bet information from a register results in an incremented value of JP_c and which equals JP_w the CPU 21 determines that the progressive jackpot has been won. At this point, the particular gaming machine whose unit bet information resulted in the win is assessed the winner of the progressive game. The CPU 21 then advises the winning machine over the respective interface and line. [5:29-37]

I have not testified as an expert witness previously. I have not published any professional writings other than the three patents identified above. I charge \$125 per hour as an expert in this matter.

Executed this ____ day of February, 1999.

Michael J. Bennett

STEVE MORRIS ADAM P. SEGAL **RECEIVED** SCHRECK & MORRIS 1200 Bank of America Plaza JUL 0 7 1999 300 South Fourth Street Las Vegas, Nevada 89101 PERKINS COIE (702) 382-2101 STEVEN E. SHAPIRO GEORGE M. BORKOWSKI D. JAMES CHUNG HOWARD H. SEO MITCHELL SILBERBERG & KNUPP LLP 11377 West Olympic Boulevard Los Angeles, CA 90064-1683 Telephone: (310) 312-2000 Facsimile: (310) 312-3100 Attorneys for Defendant 10 Mikohn Gaming Corporation 11 12 UNITED STATES DISTRICT COURT 13 DISTRICT OF NEVADA ib-0146 7 14 CASE NO. CV-S-97-1383-HDM (LRL) Acres Gaming Inc., 15 (Base File) Plaintiff, 16 EXPERT REPORT OF MICHAEL J. 17 BENNETT PURSUANT TO FED. R. Mikohn Gaming Corporation, Casino Data CIV. P. 26(A)(2) Systems, New York New York Hotel and 18 Casino, LLC, and Sunset Station Hotel and 19 Casino, Defendants. 20 21 Mikohn Gaming Corporation, 22 Counter-Claimant, 23 ٧. 24 Acres Gaming Inc., 25 Counter-Defendant. 26 27 I, Michael Joseph Bennett, the undersigned, state as follows: 28

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I am an engineer in the field of electronics design. Previously, I was a senior engineer at Intel Corporation, where I specialized in assisting customers of Intel with the design of products and systems utilizing Intel microprocessors and peripherals. Since 1989, 1 have worked primarily in the casino industry, designing electronic gaming systems and other electronic products associated with the casino industry. Prior to my beginning my work in the gaming industry, I received formal training in both electronics and computers. I have a degree in electronics technology and another in management information systems.

For my work in the casino industry, I have received three United States patents. They include U.S. Patent 5,586,936 ("Automated gaming table tracking system and method therefor"), U.S. Patent No. 5,642,160 ("Digital image capture system for photo identification cards"), U.S. Patent No. 5,550,359 ("Time and attendance system and method therefor").

For purposes of preparing this report, I have reviewed the following documents:

- 1. United States Patent No. 5,280,909;
- 2. United States Patent No. 4,652,998;
- 3. United States Patent No. 5,242,163 (the "'163 patent");
- United States Patent No. 5,820,459 (the "'459 patent"); 4.
- 5. United States Patent No. 5,836,817 (the "'817 patent");
- 6. A Great Britain patent application entitled "Systems for Playing Games." filed on October 20, 1983 and published on July 10, 1985, filed by Mecca Leisure Limited in Great Britain (the "Mecca Leisure patent");
- An SB-2 statement filed by Acres Gaming with the SEC on September 20, 1993; 7. and
- 8. Acres's Concept III Marketing Brochure.

Claim 1 of The '459 Patent and the Mecca Leisure Patent

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It appears that, on July 10, 1985, the British patent office published the patent application Ifiled by Mecca Leisure Limited in Great Britain directed to "Systems for Playing A Game." That patent application describes the invention described in Claim 1 of the '459 patent.

More specifically, the Mecca Leisure patent describes a gaming system that comprises a 7 host computer ("control unit") interconnected to a plurality of gaming devices ("play stations"). 8 The host computer has an input device with which the system operator ("caller") can select less 9 than of the gaming devices for purposes of playing a particular game. Once the system operator selects the gaming devices for participation in the game, the other gaming devices are locked out of the game. As described in the patent, the game is played over and over until there is a single winner. The host computer then sends a command to the winning device to signify the win and pays credits to the winning device.

Table 1 below sets forth the elements of Claim 1 of the '459 patent on the left and the 16 matching description in the Mecca Leisure patent on the right.

TABLE 1

| '459 Patent, Claim | Mecca Leisure Patent No. GB 2151 054 A |
|--|--|
| A system for operating a plurality of gaming devices, the system comprising: | The Mecca Leisure patent states that "[t]here is provided a system for playing a game, comprising a central apparatus and a plurality of remote uncommitted programmable apparatuses, each of the remote apparatuses being arranged to receive at least part of a game program from the central apparatus." [1:13-18] |
| | Further, the Mecca Leisure patent expressly provides that it covers a "system for playing a game comprises a control unit 3 connected to a plurality of play stations 5 by a bus 18." [Abstract.] |
| a host computer, said host computer including means for generating a reconfiguration command; | The Mecca Leisure patent states that "[t]here is provided a system for playing a game, comprising a <u>central apparatus</u> and a plurality of remote uncommitted programmable apparatuses, each of the remote apparatuses being arranged to receive at least part of a game program from the <u>central apparatus</u> ." [1:13-18] |
| , and the second | Further, the Mecca Leisure patent expressly provides that it covers a "system for playing a game comprises a control unit 3 connected to a plurality of play stations 5 by a bus 18." [Abstract.] And, it states that |

| 1 | | "[t]he remote apparatuses, the central apparatus, and the monitors may be connected to a common bus, preferably of the serial data type." [1:130 to 2:1-3] |
|----------------|--|--|
| 3 | | In the Mecca Leisure system, when a winning combination is claimed, |
| 4 5 | | the display of the number in the box 56 on all of the screens of play stations flashes to signify a claimed win, which means that a <u>command</u> is issued by the control unit to one of the "preselected" play stations to <u>reconfigure</u> the display of the display to flash the number in the box 56. |
| 6 | | Even if Acres interprets the reconfiguration command to be only a pay |
| 7 | | command, the Mecca Leisure patent anticipates the "reconfiguration command" because in the Mecca Leisure patent, the player at the |
| 8 | | winning play station is paid by credits at the play station in response to the command received from the central appratus. |
| 9 | a user-operated input device connected to said | The Mecca Leisure patent specifically states that the control unit "comprises a hand-held control unit 14 for controlling progress of the game." [2:77-78]. |
| 11 | host computer; | "The controller unit has a keypad." [2:69-70]. |
| 12 | a network | The Mecca Leisure patent expressly provides that it covers a "system for |
| 13 | interconnecting the gaming devices to | playing a game comprises a control unit 3 connected to a plurality of play stations 5 by a bus 18." [Abstract.] And, it states that "[t]he remote |
| 14 | the host computer; | apparatuses, the central apparatus, and the monitors may be connected to a common bus, preferably of the serial data type." [1:130 to 2:1-3] |
| 15 | means for preselecting less | When the system operator ("caller") decides to commence the game, he or she actuates a key on an input device connected to the host computer |
| 16 17 | than all of the gaming devices interconnected to the host computer | to prevent further players from joining a particular game. In this manner, he or she selects less than all of the gaming devises for the game. Specifically, the Mecca Leisure patent states: "When the caller judges that a sufficient number of players have joined the game, he actuates a |
| 18 19 | responsive to user-effected action | key on the key pad 14 to cause the game to proceed to the next operation. At this stage, no further play stations 5 may join that particular game, although coins or tokens may be inserted so as to prepare a non-operative play station for the next game." [4:44-52] |
| 20 21 22 | means within the computer for transmitting the reconfiguration command to one of | In the Mecca Leisure system, when a winning combination is claimed, the display of the number in the box 56 on all of the screens of play stations flashes to signify a claimed win, which means that a command is issued by the control unit to one of the "preselected" play stations to flash the number in the box 56. |
| 23 | the preselected gaming devices; | mash the number in the box 36. |
| 24 | means within each gaming device for | Each of the "preselected" play stations is responsive to a claim of a winning combination, a predetermined event. The patent states: "When a |
| 25 | receiving the reconfiguration | winning combination is claimed by operation of one of the call switches 55, the display on the display unit 19 flashes, as does the display of the |
| 26 27 | command transmitted to the gaming device; and | number in the box 56 on all of the screens of the play stations to signify a claimed win." [4:86-91] |
| 28 | means within each | The player at the winning play station is paid by credits at the play |
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gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command.

station. The screen 50 at each of the play stations shows the credits obtained. The Mecca Leisure patent states: "[T]he display provided by all of the play stations 5 has the format shown in Figure 5, this format comprising information which is thus common to all of the play stations.... Below this is information concerning the price of each game, the stake paid, and any credits obtained." [3:71-85] In addition, the "control unit performs varius 'housekeeping' functions and, in particular, supplies information to a cashier on the screen 11, such as ... the total 'credits' from wins...." [4:103-107] Since the control unit is responsible for supplying information regarding "credits for wins," it is clear that it also supplies the play stations with the credit information.

As such, the system described in the Mecca Leisure patent is the same as the invention specified in claim 1 of the '459 patent. In addition, the Mecca Leisure patent describes fully the subject gaming system and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading the Mecca Leisure patent.

Claim 1 of the '459 Patent and United States Patent No. 4,652,998

I have also reviewed United States Patent No. 4,652,998 (the '998 patent) issued to Koza et al. on March 24, 1987 and filed on January 4, 1984. The '998 patent describe a video amusement gaming system with pool prize structures including remote game terminals and a central controller with two-communications between the remote game terminals and the central controller. Prize awards are based upon random shuffling of a set of prize awards among a predetermined pool of plays for each remote game terminal. The shuffling of prizes is based upon a random seed produced either by the remote terminal of the central controller or by both. The '998 patent describes the invention described in claim 1 of the '459 patent. The following table compares the '998 patent with Claim 1 of the '459 patent:

| TABLE 2 | | | |
|--|---|--|--|
| '459 Patent, Claim 1 | United States Patent No. 4,652,998 (the '998 patent) | | |
| A system for operating a plurality of gaming devices, the system comprising: | The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer The central controller 24 maintains supervision over the entire network of | | |

| 2 | | remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4] |
|--|---|---|
| 3 4 5 | a host computer, said host computer including means for generating a reconfiguration command; | The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24. which is primarily comprised of a computer The central controller 24 maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4] |
| 6 7 8 | a user-operated input device connected to said host computer; | The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer The central controller 24 maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4] |
| 9 10 11 12 | a network interconnecting the gaming devices to the host computer; | The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer The central controller 24 maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4] |
| 13 14 15 16 17 18 19 20 21 22 23 | means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device; | The '998 patent states: "The central control of the lottery system permits a number of unique system capabilities. One such capability is an electronic market survey. The sophisticated centrally controlled lottery system can draw a random sampling of players who can be asked to participate in the survey. In the electronic marketing survey a free game play is offered on the remote terminal if the player will answer a few, simple market survey questions. This, on a random, or other basis a predetermined number of plays in each mini-pool are selected as market survey free plays. The remote terminal displays on the video monitor the offer of a free game in exchange for answers to the market questions and allows the player to accept or reject the offer. Assuming the offer is accepted the basic questions, preferably yes-no questions, are displayed beginning with marital status, and sex, followed by questions about lottery use, level of education, age, location, etc. The player answers the questions using the player control devices 57. A speech recognition unit is particularly suitable for input of survey answers. This market survey could also be sold to others to permit market surveys relating to other than lottery markets. At the conclusion of the questions, a free game is provided." [22:60-23:15] |
| 24 25 26 | means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices; | The computer is in constant communications with the terminals (gaming devices) receiving status and other data and sending various data including commands to reconfigure the gaming devices. For example, Figure 6 shows the central computer, having data lines 22 connected to the modems 178 as the means for communications and transmission of data and commands. |
| 27 28 | | According to column 22 of the '998 patent, the "central controller 24 performs a number of major lottery management functions including lottery prize pool maintenance" [22:28-30]. Also, the |

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|-------------------|---|--|
| 1 2 3 | | central computer "draw[s] a random sampling of players who can be asked to participate in an electronic marking survey. In the electronic marketing survey a free game play is offered on the remote terminal." [22:62-66]. Thus, the central computer must send command to the gaming devices to play the free game. |
| 4 5 6 | means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and | Figure 3A shows the means for communicating with the central controller as the Terminal Controller 70 and the network line 22. Command is received by the gaming device to offer the free game as commanded by the central controller. See [22:62-66]. |
| 7 8 9 10 | means within each gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command. | Each gaming devices has Game Logic 51 (see Fig. 6) and the Control Logic 52 as the means to reconfigure the gaming device. The gaming device performs the pay functions. [Fig. 3A and columns 6-7]. However, "[T]he central controller performs a number of major lottery management functions including lottery prize pool maintenance and lottery performance reporting" [22:28-31] including offering free game. [22:62-66]. |

As such, the system described in the '998 patent is the same as the invention specified in claim 1 of the '459 patent. In addition, the '459 patent describes fully the subject gaming system and someone knowledgeable with respect to the designing gaming systems would be able to construct the device from reading the '459 patent.

Claim 1 of the '459 Patent and Acres's Own SB-2 Statement it Filed with the SEC

It also appears that on September 20, 1993, Acres files an "SB-2" statement with the SEC that described fully the invention described in claim 1 of the '459 Patent. The SB-2 statement describes an Acres gaming system called "Concept III" that comprises "five products," including "casino accounting, player tracking, progressive jackpot systems for table games, progressive jackpot systems for gaming machines, and bonusing systems." As described in the SB-2 statement; "Concept III and its component products are a modular, integrated system. The casino accounting, player tracking and game promotion modules can be purchased and installed individually or as components of an integrated system."

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The SB-2 further states that a "Concept III installation includes electronic hardware linstalled in the slot machines, personal computers that serve as controllers for groups of slot machines, and software to record and analyze data, generate reports to casino management, and 4 operate progressive jackpot and bonusing systems." The SB-2 also explains that "Concept III 5 lemploys personal computer technology, and is designed to take advantage of future improvements in such technology."

With respect to the Contempt III progressive jackpot system for gaming machines product. the SB-2 describes the product as follows:

A progressive jackpot system links a number of slot machines to generate a collective jackpot. As coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot. Other progressive jackpot systems require a controller to be installed at the same location as the machines that are linked to the jackpot. In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer. This method of programming enables the casino manager to determine which machines are linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot. The flexibility provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions which may be created from time to time.

A table comparing the content of the SB-2 statement against the elements of Claim 1 of the "459 Patent is set forth below.

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TABLE 3 Acres's SB-2 Statement Filed with SEC on September 20, 1993 '459 Patent, Claim 1 Acres's SB-2 statement states that "personal computers...serve as A system for operating a controllers for groups of slot machines." It also provides that "a plurality of gaming devices, the system Concept III progressive jackpot system is programmed remotely from a personal computer." comprising: Acres's SB-2 statement states that "personal computers...serve as a host computer, said host computer including means controllers for groups of slot machines." It also provides that "a Concept III progressive jackpot system is programmed remotely for generating a reconfiguration command; from a personal computer." a user-operated input Acres's SB-2 statement states that "personal computers...serve as device connected to said controllers for groups of slot machines." It also provides that "a Concept III progressive jackpot system is programmed remotely host computer; from a personal computer." Personal computers include keyboards for user-operated input. In fact, Acres' '459 patent shows a keyboard of a personal computer as the input device. a network interconnecting The SB-2 statement and the Concept III Brochure clearly the gaming devices to the describe, in multiple places, a personal computer networked with

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| 1 | host computer; | a plurality of gaming devices. |
| 2 3 4 5 | means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device; | Acres's SB-2 statement states that "programming [the Concept III progressive jackpot system remotely from a personal computer] enables the casino manager to determine which machines are linked to the progressive jackpot." |
| 6 7 8 | means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices; | The SB-2 states that "Concept III, with its ability to <u>deliver</u> instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." Inherently, the payment instructions to be delivered to the slot machine must come from a "personal computersserve as controllers for groups of slot machines." |
| 9 10 11 | means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and | By definition, a "progressive jackpot" is won by a player playing at a "machinelinked to the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." |
| 12 13 14 15 | means within each gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command. | By definition, a "progressive jackpot" is paid to the player who wins the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." |

As of the time it was published in September 1993, the disclosure of the SB-2 was sufficient to enable a person skilled in the art of designing gaming systems to construct a devise meeting claim 1 of the '459 patent. It is clear from the SB-2 statement that a computer network is being discussed. Computer networks were well known in the art and one it was determined to build the system, it would be a simple matter of programming to complete it.

Claim 1 of the '459 Patent and Acres's Own Concept III Brochures

I have also reviewed a "Concept III" brochure that I understand was circulated in the gaming industry. The Concept III brochure teaches the method described in Claim 1 of the "459 patent.

TABLE 4

Mitchell Silberberg & Knupp LLP

| 1 | '459 Patent, Claim 1 | Acres's Concept III Brochure |
|--------------|--|---|
| 3 4 | A system for operating a plurality of gaming devices, the system comprising: | The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p.3] |
| 5 | a host computer, said host computer including means for generating a reconfiguration command; | The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p.3] Personal computers have means (CPU, memory, etc.) To generate various commands to be sent to devices it is connected with. |
| 7 8 9 | a user-operated input device connected to said host computer; | The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p.3] Personal computers typically have keyboards, mice, and other input devices. |
| 1 2 | | Further, the brochure states "[y]ou simply type in which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc." [p. 3]. "Typ[ing] in" implies a computer keyboard. |
| 3 | a network interconnecting the gaming devices to the host computer; | The figure in the Concept III brochure depicts gaming devices interconnected/networked to a host computer. |
| 5 | means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device; | The Concept III brochure states: "You select which machines are used in which promotions, connect your signage and information displays (if any) and begin operation. Concept III allows any number of different promotions to operate simultaneously." [p.2] "AutoScan provides full accounting of bonus payments and requires no human intervention for bonus award payments." [p. |
| 8 | | 2] |
| 9 | means within the computer for transmitting the reconfiguration command | "Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts." [p. 2] |
| 21 22 23 | to one of the preselected gaming devices; | "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to pay money from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through |
| 24 | means within each gaming | displays mounted on the machine." [p. 1-2] "Concept III automates double jackpot payments by causing the |
| 25 | device for receiving the reconfiguration command | machine hopper to pay bonus amounts." [p. 2] |
| 26 | transmitted to the gaming device; and | "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to |
| 27 | | pay money from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through |

| 1 | | displays mounted on the machine." [p. 1-2] |
|----|--|--|
| 2 | means within each gaming device for reconfiguring the gaming device | "Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts." [p. 2] |
| 4. | responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance | "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to pay money from the hopper, place extra credits on the credit |
| 5 | pays a bonus in accordance with the received reconfiguration command. | meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through |
| 7 | | displays mounted on the machine." [p. 1-2] |

Claim 4 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same

references. In addition, Tables 5, 6, 7, and 8 below compare Claim 4 to the four references.

| 16 | TABLE 5 | |
|----------|---|---|
| 10 | '459 Patent, Claim 4 | Mecca Leisure Patent No. GB 2151 054 A |
| 17 | A system for operating a plurality of gaming devices according to claim 1 | See Table 1, supra. |
| 19 20 | wherein the host computer comprises at least one floor controller. | "Figure 3 is a block diagram of a control apparatus or a central unit of the system of Figure 1;" [2:38-40]. |
| 21 | Controller. | "The system comprises <u>a control unit</u> 3 disposed adjacent a raised platform 4 and <u>connected to a plurality of player stations</u> 5." [2:48-51]. |
| 22 1 | | [2 |

| 23 | TABLE 6 | |
|----------|---|---|
| 24 | '459 Patent, Claim 4 | United States Patent No. 4,652,998 (the '998 patent) |
| 25 26 | A system for operating a plurality of gaming devices according to claim 1 | See Table 2, supra. |
| 27 28 | wherein the host computer comprises at least one floor controller. | "[A] gaming system having a <u>central controller</u> and a <u>plurality of remote terminals</u> each operable for playing a game, a prize distribution system." [24:52-54, Claim 1]. |

| "The floor controllers 18 and 28 |
|-----------------------------------|
| are, in the preferred embodiment. |
| IBM-compatible personal |
| computers." [7:28-30]. |

"Each remote terminal 20 is coupled, as shown, by a communications medium 22 to a central controller 24. which is primarily comprised of a computer." [2:53-55].

TABLE 7

| '459 Patent, Claim 4 | SB-2 Statement Acres Filed with SEC on September 20, 1993 |
|---|--|
| A system for operating a plurality of gaming devices according to claim 1 | See Table 3, supra. |
| wherein the host computer comprises at least one floor controller. "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible personal computers." [7:28-30]. | Acres's SB-2 statement states that "personal computersserve as controllers for groups of slot machines." [p. 16]. It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer." [p. 19]. |

TABLE 8

| '459 Patent, Claim 4 | Acres's Concept III Brochure |
|---|---|
| A system for operating a plurality of gaming devices according to claim 1 | See Table 4, supra. |
| wherein the host computer comprises at least one floor controller. | The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is |
| "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible personal computers." [7:28-30]. | programmed from a personal computer." [p. 3]. |

As such, the systems described in each of the four cited references (Mecca Leisure patent, 20 the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention 21 specified in claim 4 of the '459 patent. In addition, each of the four cited references, individually 22 and in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading any one of the four cited references.

Claim 8 of the '459 Patent

Claim 8 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same references. In addition, Tables 9, 10, 11, and 12 below compare Claim 8 to the references.

TABLE 9

| '459 Patent, Claim 8 | Mecca Leisure Patent No. GB 2151 054 A |
|---|--|
| A system for operating a plurality of gaming devices according to claim 1 | See Table 1, supra. |
| wherein the means within each gaming device for receiving the reconfiguration command transmitted to the gaming device comprises • a data communication node coupled to the network and coupled to the serial interface of the associated gaming device, wherein the data communication node monitors the transmissions on the network and determines which transmission is transmitted to the associated gaming device. | "A bi-directional interface 30 which controls transfer of data between the bus 18 and a central processing unit (CPU) 31. The interface 30 converts between the balanced signals, for instance having an amplitude of 24 volts, on the bus 18 and the logic level signals of the CPU 31, and also converts between serial data flow for the bus 18 and parallel data flow for the CPU 31." [3:5-14]. This interface is within each gaming machine. See Fig. 3. |

TABLE 10

| - [] | <u></u> | |
|------|--|---|
| | '459 Patent, Claim 8 | United States Patent No. 4,652,998 (the '998 patent) |
| | A system for operating a plurality of gaming devices according to claim 1 | See Table 2, supra. |
| 3 | wherein the means within each gaming device for receiving the reconfiguration command transmitted to the gaming device comprises a data communication node | "The terminal controller 70, shown in FIG. 3A, is a separate, secure unit within the remote terminal housing 32 which controls all communications in a secure manner to and from the central controller 24 (see FIG. 1)." [6:19-22]. |
| 5 | coupled to the network and coupled to the <u>serial interface</u> of the associated gaming device, wherein the data communication node monitors the transmissions on the network and <u>determines which transmission</u> is | "The modem 142 is coupled through a conventional serial communicator 144 to the terminal controller processor 150, as shown. In addition, the cable 68 is coupled from the game controller 50 (see FIG. 3) through conventional input protection circuitry 146 to |
| 3 | transmitted to the associated gaming device. | a standard RS232 [standard serial communications] interface 148 to permit communications between the |

| 2 3 | | terminal controller 70 and the game controller 50. The interface 148 couples signals through the serial communicator 144 (in the preferred embodiment, comprising Zilog 8440 SIO's) to the terminal controller processor 150, as shown." [9:29-39]. |
|-----------------------|--|--|
| 4 | | |
| 5 | | TABLE 11 |
| 6 | '459 Patent, Claim 8 | SB-2 Statement Filed with SEC on September 20, 1993 |
| 7 | A system for operating a plurality of gaming devices according to claim 1 | See Table 3, supra. |
| 8 9 10 11 | wherein the means within each gaming device for receiving the reconfiguration command transmitted to the gaming device comprises a data communication node coupled to the network and | The SB-2 discusses installing hardware in the slot machines to enable the machines to receive data from the system. One of the most common standard, at the time of the patent application, for data communications on a network or between devices is the RS232 serial communications protocol. |
| 12 | coupled to the serial interface of the associated gaming device, | "A Concept III installation includes electronic <u>hardware</u> installed in the slot machines." [p. 16]. |
| 13 14 15 | wherein the data communication node monitors the transmissions on the network and determines which transmission is transmitted to the associated gaming device. | "The primary manufacturers of slot machines,, are making extensive changes to the software used in their machines to the Concept III system technology. The changes will permit the slot machines to accept instructions from the Concept III system." [p. 17]. |
| 16 17 | · | "In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer." [p. 18]. |
| 18 | | "Concept III, with its ability to deliver instructions to the slot machines," [p. 18]. |
| 19 | | |
| 20 | | TABLE 12 |
| 21 | '459 Patent, Claim 8 | Acres's Concept III Brochure |
| 22 | A system for operating a plurality of gaming devices according to claim 1 | See Table 4, supra. |
| 23 | wherein the means within each gaming device for receiving the | "Electronic module, called AutoScan, is <u>installed in each</u> slot machines. [p. 1]. |
| 25 ⁻ 26 | reconfiguration command transmitted to the gaming device comprises a data communication | "Our system includes including the most advanced units with 'serial interfaces'. [Data Collection section, p. 2]. |
| 27 28 | node coupled to the network and coupled to the serial interface of the associated gaming device, wherein the data communication | "The [Autoscan] module counts Coins In, Coins Out, and other functions The AutoScan module's increased power allows it to work with the machines in ways never |

node monitors the transmissions on the network and determines which transmission is transmitted to the associated gaming device.

before possible. ... These advanced features make possible such promotions as Double Jackpot Time, Bonus payouts, ... and others." [pp.1-2].

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Claim 15 of the '459 Patent

of the four cited references.

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Claim 15 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same references. In addition, Tables 13, 14, 15, and 16 below compare Claim 15 to the references.

As such, the systems described in each of the four cited references (Mecca Leisure patent,

the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention

specified in claim 8 of the '459 patent. In addition, each of the four cited references, individually

and in combination, fully describe the subject gaming system, and someone knowledgeable with

respect to designing gaming systems would be able to construct the device from reading any one

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TABLE 13

'459 Patent, Claim 15 Mecca Leisure Patent No. GB 2151 054 A The system of claim 1 See Table 1, supra. wherein said system further includes "The control unit 3 [host computer] is connected means for transmitting data related to the player station 5 (labelled 1 to n in Figure to the level of play at each gaming device to 2) by a multidrop serial bus 18." [2:83-85]. said host computer and wherein said host computer includes data "[T]he control unit includes a game storage area

10 in which the programmer or software for a plurality of different games for use in the system are stored." [2:60-65].

"preselected level of play" is not defined by

TABLE 14

'459 Patent, Claim 15

preselected level of play.

stored therein defining criteria related to a

the Specification of the '459 patent.

United States Patent No. 4,652,998 (the '998 patent)

| | | |
|-----------------------|---|---|
| 1 | The system of claim 1 | See Table 2, supra. |
| 2 3 4 5 6 | wherein said system further includes means for transmitting data related to the level of play at each gaming device to said host computer and wherein said host computer includes data stored therein defining criteria related to a preselected level of play. | "Each remote terminal 20 is coupled, as shown, by a communications medium 22 to a central controller 24, which is primarily comprised of a computer." [2:53-55]. "At least one conventional hard disk storage device 182 (e.g. Fujitsu "Eagle" M2284 disk drive) is coupled to each of the parallel computers 180, as shown, for data and file storage." [21:21-24]. |
| 7 | | TARIF 15 |

| '459 Patent, Claim 15 | SB-2 Statement Filed with SEC on September 20, 1993 |
|---|---|
| The system of claim 1 | See Table 3, supra. |
| wherein said system further includes • means for transmitting data related to the level of play at each gaming device to said host computer and wherein • said host computer includes data stored therein defining criteria related to a preselected level of play. | Acres's SB-2 statement states that "personal computersserve as controllers for groups of slot machines." [p. 16]. It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer." [p. 17]. Further, the Concept III system "enables a casino to monitor the promotions to those players." [p. 16]. This indicates that there are means for transmitting data from the gaming devices to the host computer. The host computer is a "personal computer," [p. 16], which always include data storage means. |

TABLE 16

| '459 Patent, Claim 15 | Acres's Concept III Brochure | |
|---|---|--|
| The system of claim 1 | See Table 4, supra. | |
| wherein said system further includes means for transmitting data related to the level of play at each gaming device to said host computer and wherein said host computer includes data stored therein defining criteria related to a preselected level of play. | Figure on p. 1 of Acres's Concept III Brochure shows "Four Wire Cable" connected for transmitting data from the gaming devices to floor controllers, and "High Speed Ethernet Network" from the floor controllers to personal computers. The host computer is a "personal computer," [p. 16], which always include data storage means. | |

As such, the systems described in each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention 27 specified in claim 15 of the '459 patent. In addition, each of the four cited references, 28 |individually and in combination, fully describe the subject gaming system, and someone

1 knowledgeable with respect to designing gaming systems would be able to construct the device 2 from reading any one of the four cited references.

Claim 16 of the '459 Patent

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Claim 16 of the '459 patent is anticipated by and/or rendered obvious by Acres's own SBto 2 statement it filed with the SEC and Acres's own Concept III Brochures. Claim 16 of the '459
to patent is also rendered obvious by Mecca Leisure Patent and United States Patent No.5,242,163.
Tables 17 and 18 compare Claim 16 to Acres's own SB-2 statement it filed with the SEC and
Acres's own Concept III Brochures. Table 19 compares Claim 16 to the Mecca Leisure Patent
and the '163 patent.

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TABLE 17

| 13 | '459 Patent, Claim 16 | SB-2 Statement Filed with SEC on September 20, 1993 |
|----|--|---|
| 14 | The system of claim 15 | See Table 15, supra. |
| 15 | wherein said host computer includes means for | The ability to transmit commands also imply the ability to not transmit, or prevent transmission of, the commands: "Concept III, with its ability to deliver instructions to the slot |
| 16 | preventing transmission of a | machines, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs. In |
| 17 | reconfiguration command to a selected | addition, the Concept III technology allows a double jackpot or other bonus program to operate on a random basis, or to operate only when |
| 18 | one of said gaming devices unless the <u>level</u> | a minimum level of activity is present." [p. 18]. |
| 19 | of play meets said stored criteria. | "The changes will permit the slot machines to accept instructions from the Concept III system, primarily in connection with the |
| 20 | | bonusing system module." [p.17]. |
| 21 | | "This method of programming enables the casino manager to determine which machines are to be linked to the progressive |
| 22 | · | jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot." [p. |
| 23 | | 18]. |

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TABLE 18

| '459 Patent, Claim 16 | Acres's Concept III Brochure |
|---|--|
| The system of claim 15 | See Table 16, supra. |
| wherein said host computer includes means for preventing | For transmission of commands, various cables and data cables, including, Ethernet, is used to send signals over "serial interfaces." [Data Collection System p. 2, 4]. |

transmission of a reconfiguration command to a selected one of said gaming devices unless the <u>level of play meets said stored criteria</u>.

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"Examples of Reconfiguration commands [are] 1. Bonus Pay From Hopper (Coin Format) 2. Bonus Pay to Credit Meter (Coin Format)" [23:42-45 of the '459 Specification].

Inherent in the ability to "cause" payments using the networked system is the means for transmission of or preventing the transmission of reconfiguration command to pay.

"Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts." [p.2].

"Concept III lets you set minimum activity levels required to be eligible for double jackpots. ... - for example, at least 20 coins played over the last three minutes." [p.3].

TABLE 19

| - 8 | TABLE 19 | | |
|--|---|--|--|
| 9 | '459 Patent, Claim 16 | Mecca Leisure Patent No. GB 2151 054 A; and United States Patent No.5,242,163 | |
| 10 | The system of claim 15 | See Table 13, supra. | |
| 11 12 13 14 15 16 17 18 19 20 | wherein said host computer includes • means for preventing transmission of a reconfiguration command to a selected one of said gaming devices unless the level of play meets said stored criteria. | Sending of commands or preventing the transmission of commands is inherent in connection of central controllers and plurality of gaming devices. For example, the Mecca Leisure patent states that "[t]here is provided a system for playing a game, comprising a central apparatus and a plurality of remote uncommitted programmable apparatuses, each of the remote apparatuses being arranged to receive at least part of a game program from the central apparatus." [Mecca Leisure, 1:13-18]. The '163 patent expresses the ability to transmit or not transmit as follows: "[T]he communication between the control station 80 and each gaming device 10 is established through electrical wires 40." [3:64-65]. Further, the control station of the '163 patent may have, as its "level of play" criteria to allow the player to play the second game, a requirement that the player be "already playing a first game on a gaming device 10 to participate in the second game." [5:50-55]. It would be obvious to modify the Mecca Leisure patent with the '163 patent criteria. | |

As such, the systems described in two of the cited references (the SB-2 document, and the

23 Concept III brochure) are the same as the invention specified in claim 16 of the '459 patent. In

24 addition, each of these two cited references, individually and in combination, fully describe the

25 subject gaming system, and someone knowledgeable with respect to designing gaming systems

26 would be able to construct the device from reading any one of these two cited references.

27 Moreover, the Mecca Leisure Patent and the '163 patent, in combination, fully describe the

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subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading these two cited references.

Claim 18 of the '459 Patent

Claim 18 of the '459 patent is anticipated by and/or rendered obvious by Acres's own SB
z statement it filed with the SEC and Acres's own Concept III Brochures. Claim 18 of the '459

patent is also rendered obvious by Mecca Leisure Patent and United States Patent No.5,242,163.

Tables 20 and 21 compare Claim 16 to Acres's own SB-2 statement it filed with the SEC and

Acres's own Concept III Brochures. Table 22 compares Claim 16 to the Mecca Leisure Patent

and the '163 patent.

TABLE 20

| '459 Patent, Claim 18 | SB-2 Statement Filed with SEC on September 20, 1993- | |
|--|--|--|
| The system of claim 16 | See Table 17, supra. | |
| wherein said criteria relates to the rate at which coins are played. | The rate of coin-play is commonly know as the "activity level" and is discussed on p. 18 of the SB-2 filing: "In addition, the Concept III technology allows a double jackpot or other bonus program to operate on a random basis, or to operate only when a minimum level of activity is present." [p. 18]. | |

TABLE 21

| '459 Patent, Claim 18 | Acres's Concept III Brochure |
|--|--|
| The system of claim 16 | See Table 18, supra. |
| wherein said criteria relates to the rate at which coins are played. | "Concept III lets you set minimum activity levels required to be eligible for double jackpots for example, at least 20 coins played over the last three minutes." [p.3]. |

TABLE 22

| '459 Patent, Claim 18 | Mecca Leisure Patent No. GB 2151 054 A; and United States Patent No.5,242,163 |
|--|---|
| The system of claim 16 | See Table 19, supra. |
| wherein said criteria relates to the rate at which coins are played. | In the '163 patent, the criteria relates to the rate at which coins are played because the criteria is that the player eligible to play the second game is already playing the first game. In other words, the criteria is that the rate of coins being played is not zero: "Accordingly, the casino gaming system can be configured to only allow people who were already playing a first game on a gaming device 10 to participate in the second game Of course, it is within the scope of the present invention, and well within the skill of those skilled in the art, to require input of some monetary value, either in the form of coins or credits, before allowing players to participate in the second game." [5:49-61]. |

As such, the systems described in two of the cited references (the SB-2 document, and the Concept III brochure) are the same as the invention specified in claim 18 of the '459 patent. In addition, each of these two cited references, individually and in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading any one of these two cited references.

Moreover, the Mecca Leisure Patent and the '163 patent, in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems

would be able to construct the device from reading these two cited references.

Finally, in addition to the above-discussed publications and prior references, at the time the '459 patent was filed, there were several networked slot accounting and player tracking systems on the market each of which would have met most, if not all, of the claims in the '459 patent. Furthermore, anyone moderately skilled in the art at the time could have constructed the system described by the '459 patent with relative ease. In short, the system described by the '459 patent was fully disclosed in various prior art or published references at the time it was filed.

THE '817 PATENT

Claim 1 of The '817 Patent

Claim 1 of the '817 Patent is reproduced below:

1. A method of operating gaming devices interconnected by a computer network to a host computer comprising:

selecting a plurality of the gaming devices;

using the network to track the amount of money played on the selected gaming devices;

allocating a predetermined percentage of the money played to a bonus pool;

issuing a command over the network including data establishing criteria to cause a bonus to be paid from the pool via one of said selected gaming devices upon the occurrence of a predetermined event;

storing the command in a memory connected to a controller associated with only one of the gaming devices;

transmitting data indicative of gaming device activity from the gaming device to the controller;

transmitting a pay command from the controller to the gaming device upon the occurrence of the predetermined event; and

paying the bonus via the gaming device responsive to receipt of the pay command.

Even after a careful examination of Claim 1, I could not discern the alleged inventive method as recited by Claim 1 because Claim 1 is unintelligible, ambiguous, and the Specification of the '817 Patent has no explanation or support for critical sections of Claim 1.

For example, the step requiring the "issu[ance] of a command over the network including data establishing criteria to cause a bonus to be paid from the pool via one of said selected gaming devices upon the occurrence of a predetermined event" is ambiguous. It is not clear what the "data establishing criteria to cause a bonus to be paid" is. And, the relationship between that data and the "predetermined event" is undefined. Moreover, the Specification of the '817 Patent does not explain or describe these elements or this step. In fact, a careful examination of the

Mitchell Silberberg & Knupp LLP I Specification of the '817 Patent shows that the Specification completely fails to explain or discuss

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command.

| 1 | "programs, instructions, and gaming device information" are stored in controller memory. [See | | |
|----|--|--|--|
| 2 | 9:6-33]. Yet again, the Specification fails to explain, discuss, or provide any support for this | | |
| 3 | clause or for Claim 24. | | |
| 4 | Moreover, Claim 24 contradicts itself. It first includes a step calling for an "initiati[on o | | |
| 5 | a bonus period after the bonus pool exceeds a predetermined level." Then, Claim 24 includes a | | |
| 6 | step of "initiating the bonus period" having no conditions or further limitations. Needless to say, | | |
| 7 | this double initiation "technique" is not explained or even mentioned in the Specification. | | |
| 8 | However, if Claim 24 were some how construed to cover Mikohn's products, Claim 24 | | |
| 9 | would be anticipated by and/or rendered obvious by the prior art references discussed above for | | |
| 10 | the same or similar reasons. | | |
| 11 | | | |
| 12 | Claim 29 of The '817 Patent Is Unintelligible, Ambiguous, Anticipated, And Obvious | | |
| 13 | Claim 29 of the '817 Patent is reproduced below: | | |
| 14 | 29. The method of claim 24 wherein said predetermined event comprises | | |
| 15 | transmission of a pay command from the host computer to the controller. | | |
| 16 | Claim 29 suffers from all the ambiguity and uncertainty problems of Claim 24 and is | | |
| 17 | therefore unintelligible. In addition, Claim 29 is unintelligible, ambiguous, and has no | | |
| 18 | explanation or support in the Specification of '817 Patent because Claim 29 is nonsensical and | | |
| 19 | circular. | | |
| 20 | Claim 29 is a dependent claim based on independent claim 24. Taken together with claim | | |
| 21 | 24, the claim 24-29 combination reads, in part, | | |
| | (from claim 24) transmitting a pay command from the controller to the gaming device upon the occurrence of the predetermined event; and | | |
| 23 | (claim 29) wherein <u>said predetermined event</u> comprises <u>transmission of</u> <u>a pay command</u> from the host computer to the controller. | | |
| 25 | a pay command nom the nost compater to the controller. | | |
| 26 | For example, the Specification of the '817 Patent expressly states that "the reconfiguration | | |
| 27 | command originate from floor controller" [23:33-34, emphasis added] where the "examples of | | |
| | Reconfiguration commands [include] Bonus Pay From Hopper (Coin Format)" and "Bonus Pay | | |
| 20 | From Credit Meter (Coin Format)." [23:42-44]. Claim 29, inconsistently with the Specification, | | |

I recites the pay command originating from a "host computer" and using the controller as merely a 2 |routing medium. Once again, the Specification fails to explain or support this Claim because the Specification does not describe any communication between a host computer and a controller. 3 4 Moreover, in the Specification, terms "controller" and "host computer" are used interchangeably. For example, at 23:33, the Specification states that "the reconfiguration 5 command originate from floor controller and are transmitted to a particular machine." [23:33-34, emphasis added. Elsewhere, the Specification has the host computer originating and transmitting the reconfiguration command: "Remote reconfiguration includes sending a reconfiguration command from a host computer to one or more of the gaming devices." [6:37-39, emphasis 10 added. Then, replacing "host computer" with "controller", we can rewrite Claim 29 as follows: (from claim 24) transmitting a pay command from the controller to the 11 gaming device upon the occurrence of the predetermined event; and 12 claim 29) wherein said predetermined event comprises transmission of a pay command from the *controller* to the controller. 13 14 This is a nonsensical, circular claim where the step ("transmitting a pay command") depends upon 15 itself ("transmission of a pay command") as the triggering event. 16 However, if Claim 29 were some how construed to cover Mikohn's products, Claim 29 17 would be anticipated by and/or rendered obvious by the prior art references discussed above for 18 the same or similar reasons. 19 20 As of the time it was published in September 1993, the disclosure of the SB-2 was 21 sufficient to enable a person skilled in the art of designing gaming systems to construct a devise 22 meeting claims 1, 21, 24 and 29 of the '817 patent. It is clear from the SB-2 statement that a 23 24 25 26 27

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1 computer network is being discussed. Computer networks were well known in the art and one it 2 was determined to build the system, it would be a simple matter of programming to complete it.

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Finally, in addition to the above-discussed publications and prior references, at the time 4 the '817 patent was filed, there were several networked slot accounting and player tracking systems on the market each of which would have met most, if not all, of the claims in the '817 patent. Furthermore, anyone moderately skilled in the art at the time could have constructed the 7 system described by the '817 patent with relative ease. In short, the system described by the '817 patent was fully disclosed in various prior art or published references at the time it was filed.

I have not testified as an expert witness previously. I have not published any professional writings other than the three patents identified above. I charge \$125 per hour as an expert in this 12 matter.

Executed this _____ day of July, 1999.

PROOF OF SERVICE

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STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

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I am employed in the county of Los Angeles, State of California. I am over the age of 18, and not a party to the within action; my business address is Mitchell, Silberberg & Knupp LLP, 11377 West Olympic Boulevard, Los Angeles, California 90064-1683.

5

On July 6, 1999, I served the foregoing document(s) described as Expert Report of Michael J. Bennett Pursuant To Fed. R. Civ. P. 26(A)(2) on the parties in this action by placing an original thereof enclosed in sealed envelopes addressed as follows, and taking the action described below:

6 7

BY U.S. MAIL

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Mark Rosencrantz, Esq. Jolley Urga Wirth & Woodbury 3800 Howard Hughes Parkway, 16t Floor Wells Fargo Tower

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Las Vegas, Nevada 89109

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Bruce Benson, Esq. Casino Data Systems 3300 Birtcher Drive Las Vegas, Nevada 89118

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Robert C. Ryan, Esq. IAN F. BURNS & ASSOCIATES

P.O. Box 20038 560 East Plumb Lane

Reno, Nevada 89502

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BY FEDERAL EXPRESS

Jerry Riedinger, Esq Perkins Coie LLP 1201 Third Avenue, 40th Floor Seattle, Washington 98101-3099

Lawrence M. Jarvis, Esq. Gregory Schodde, Esq. McAndrews, Held & Malloy Ltd. 500 West Madison Street, 34th Floor Chicago, Illinois 60661

BY MAIL: I deposited such envelope in the mail at Los Angeles, California. The envelope was mailed with postage thereon fully prepaid.

BY FAX: [Instead of placing a copy of the document in a sealed envelope,] I sent a copy of the above-described document(s) via telecopier to each of the individuals set forth above, at the above facsimile telephone numbers:

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Executed on July 6, 1999, at Los Angeles, California.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

Marche Huy Martha Gruft

litchell Silberberg & Knupp LLP

| 1 | Bruce W. Benson, Esq. | RECEIVED |
|-----|--|------------------------------------|
| _ | CASINO DATA SYSTEMS | FEB 1 7 1999 |
| 2 | 3300 Birtcher Drive Las Vegas, Nevada 89118 | Seminate Oit |
| 3 | Lawrence M. Jarvis, Esq. | W - 1 |
| - 4 | Gregory C. Schodde, Esq. MCANDREWS, HELD & MALLOY, LTD. | |
| 5 | 500 West Madison Street, 34th Floor Chicago, Illinois 60661 | · |
| 6 | (312) 707-8889 | |
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| 9 | P.O. Box 20038 560 East Plumb Lane | |
| 10 | Reno, Nevada 89515-0038 | |
| 11 | Attorneys for Defendants CASINO DATA SYSTEMS AND | |
| | SUNSET STATION HOTEL AND CASINO | |
| 12 | UNITED STATE | ES DISTRICT COURT |
| 13 | | T OF NEVADA |
| 14 | MIKOHN GAMING CORP., |) |
| 15 | Plaintiff, | } |
| 16 | |)) |
| 17 | V. | CV-S-97-1383-HDM (LRL) (Base File) |
| 18 | ACRES GAMING, INC., | EXPERT WITNESS REPORT OF |
| 19 | Defendant. | LEROY A. PROHOFSKY |
| 20 | ACRES GAMING, INC. |) |
| 21 | Plaintiff. | |
| 22 | v. | |
| 1 | MIKOHN GAMING CORPORATION: |) |
| 23 | NEW YORK NEW YORK HOTEL & |)) |
| 24 | CASINO, LLC; CASINO DATA SYSTEMS; and SUNSET STATION |)) |
| 25 | HOTEL & CASINO, |)) |
| 26 | Defendants | , |
| 27 | | |
| 28 | | |

My name is Leroy Prohofsky. I have been retained as an expert by Defendant Casino Data Systems (CDS) and have been asked to opine as to whether the asserted claims of U.S. Patent 5,752,882 ("the '882 patent") are anticipated by the prior art, whether the asserted claims of the '882 patent would have been obvious to one of ordinary skill in the art at the time of the "invention," and whether any or all of the asserted claims of the '882 patent are otherwise invalid for failure to comply with 35 U.S.C. § 112, e.g., whether the claims of the '882 patent particularly point out and distinctly claim particular subject matter. In addition, I have been asked to opine as to whether the accused CDS product infringes the asserted claims of the '882 patent. I have been asked to submit this report setting forth my opinions and the basis and reasons therefore, the information I considered in forming my opinions, and identify any exhibits used to summarize or support my opinions. I submit this report pursuant to Federal Rules of Civil Procedure 26(a)(2) and this Court's Scheduling Order.

I. EXPERT QUALIFICATIONS

- 1. I am a graduate of the University of Minnesota, Institute of Technology, having received a Bachelor of Science degree in Electrical Engineering, June 1956. Following graduation, I served two years in the United States Navy and was honorably discharged with rank of Lieutenant, Jr. Grade.
- 2. Following my discharge from the service, I was hired as an Electrical Engineer by Remington Rand Univac (later known as the Univac Division of Speery Corporation and even later as the Computer Systems Division of Unisys Corporation). Between August 1958

and September 1961, I was actively engaged in the design of automatic component testing equipment, the performance of miniaturization studies relating to electronic circuits for use in digital data processing equipment, and the design of high speed strip line interconnection systems for a state-of-the-art computer.

- 3. Between September 1961 and June 1963, I continued to work at Sperry Univac and was promoted to Supervising Engineer in the Advanced Development Department where I engaged in the design and development of an advanced microelectronic aerospace computer.
- 4. In June 1963, I was promoted to Department Manager of Aerospace Computer Development where I had responsibility for the design of circuits for a computer used in the guidance of a mobile, medium-range, ballistic missile and for the development of new memory and packaging techniques for the company's advanced aerospace computers.
- 5. Between March 1968 and September 1970, I served as the Department Manager for Sperry Univac's Advanced Development Department. In this capacity, I was responsible for the development of a so-called Solid Stack Mated Film Memory which was a new memory design involving vacuum-deposited, ferromagnetic films as the storage element.
- 6. In September 1970, I was placed in charge of Sperry Univac's Memory Design and Development Department and was responsible for the development of all memories built by the company's Defense Systems Division, I was required to develop and maintain a design capability for a diverse range of memory technologies dictated by the company's customers, primarily the U.S. Department of Defense. This group was also engaged in developing enhancements of established memory technologies and their incorporation into products.

- 7. Between March 1971 and November 1975, I continued on in the same role, first in the Sperry Univac Engineering Department and later in its Research & Component Development Department.
- 8. In November 1975, I was promoted to the level of Group Manager of Systems Hardware within the Development and Manufacturing Engineering Department, and took prime responsibility for the design and development of a broad line of products including memories and peripheral equipment required to apply computer products to systems. Specific developments for which I was responsible included semiconductor memories, analog to digital and digital to analog conversion subsystems, a moveable head disk controller, and a data acquisition system.
- 9. From November 1977 to November 1983, I served as a Group Manager for data acquisition and display development. I had prime responsibility for technology development of terminal interface and user devices. development the of ultrasensitive magnetometer/gradiometer system employing super-conducting quantum interference devices (SQUIDS), and the development of several display terminals, magnetic bubble mass memory, metal nitride oxide semiconductor (MNOS) mass memory, and voice response systems. It was typical to employ microprocessors as control elements in these products.
- 10. From November 1983 until November 1984, I served as Manager of Research and Development. I was responsible for the planning and coordination of the Research and Development Program within the Computer Systems Division. As such, I supervised over 40

different technology projects relating to computers and computer peripheral equipment, having an annual budget of over \$9,500,000.

- 11. From November 1984 until December 1985, I served as a Senior Staff Scientist and Chairman of the Advanced Technology Team. As such, I was a staff consultant to management for advanced technology topics and technology forecasts.
- 12. In December 1985, I was promoted to Director of the Corporate Technology Center for Optics, and served in this position until November 1987. In this capacity, I was responsible for the applied research in optics that supported all of the corporate operating divisions. This was a broad area of research that applied emerging optic technologies to communications, signal processing, data processing, and radio frequency sensor applications.
- 13. Throughout my career at Sperry Univac, now Unisys, I have been actively engaged in the development of a broad variety of digital circuits, computers, and computer peripheral equipment. I have been responsible for many of the high technology developments within the Defense Systems Division. This experience has provided a very broad insight into circuit and logic design techniques. Additionally, special assignments to represent the division on the Patent Review Committee and the Advanced Technology Advisory Committee have provided an even broader overview of electronic technology.
- 14. In June 1988, I retired from Unisys and am presently self-employed as a consultant in the field of digital electronics.

15. I have authored several papers dealing with computer technology and am either a sole or a joint inventor on the following issued U.S. Letters Patent. These patents by number and descriptive title are as follows:

| Number | Title of Patent | Filed | Issued |
|------------|--|----------|----------|
| 3,202,869 | Electrical Apparatus with Insulated Heat | 12/10/62 | 8/24/65 |
| | Conducting members | | |
| 3,214,827 | Electrical Circuitry Fabrication | 12/10/62 | 11/2/65 |
| 3,274,520 | High Frequency Pulse Branching and | 10/11/65 | 9/20/66 |
| | Coupling Network | | |
| 3,354,445 | Mated-Film Element with Single | 1/3/66 | 11/21/67 |
| | Vertical Word Line | | |
| 3,357,004 | Mated Thin Film Memory Element | 11/23/65 | 12/5/67 |
| 3,371,249 | Laminar Circuit Assembly | 3/19/62 | 2/27/68 |
| 3,382,491 | Mated Thin Film Memory Element | 10/23/65 | 5/7/68 |
| 3,435,435 | Solid Stack Memory | 10/24/65 | 3/25/69 |
| 3,400,440 | Input-Output Circuit | 4/29/66 | 4/22/69 |
| 3.450,900 | Digital Sense Amplifier | 6/28/66 | 6/17/69 |
| Re. 27,395 | Solid Stack Memory | 12/22/69 | 6/20/72 |
| 3,810,116 | Volatile Memory Protection | 11/24/72 | 5/7/74 |
| 3,813,768 | Method of Forming a Tunnel Structure | 1/29/73 | 6/4/74 |
| | for a Magnetic Plated-Wire Memory | | |
| • | Аггау | | |
| 3,766,818 | Electronic Frequency Measuring | 5/1/72 | 10/23/73 |
| | Apparatus | | |
| 4,360,912 | Distributed Status Reporting System | 11/23/79 | 11/23/82 |
| 4,546,349 | Local Zoom for Raster Scan Displays | 6/22/84 | 10/8/85 |

My published papers are listed below:

- a. "Mated Film Memory Implementation of new Design and Production Concept", Fall Joint Computer Conference, 1968.
- b. "Competing Storage Technologies in Future Computer Systems", Intermag, 1974.
- c. "A Modular Display for Command & Control Applications", Electronics for National Security, 1983.

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- d. "Optics for system Intraconnect", IEEE/ACM International Conference on Systems Sciences, 1987.
- 16. I am a Senior Member of the Institute of Electrical and Electronic engineers.

II. OUESTIONS INVESTIGATED AND INFORMATION CONSIDERED

A. Questions Investigated

CDS's counsel has asked me to provide my opinion and to testify at trial concerning the '882 patent. Specifically, I have been asked to opine on the following issues:

- 1. What does the '882 patent teach?
- 2. What is the scope and content of the prior art to the '882 patent?
- 3. What are the differences, if any, between the subject matter claimed in the '882 patent and the prior art?
- 4. What is the level of skill of a person of ordinary skill in the art to which the '882 patent pertains at the time of the alleged invention of the '882 patent?
- 5. Are the claims of the '882 patent anticipated or obvious to a person of ordinary skill in the art at the time of the alleged invention of the '882 patent?
- 6. Do the claims of the '882 patent particularly point out and distinctly claim the alleged invention?
- 7. Are the claims of the '882 patent infringed by the accused CDS product?

B. Law Supplied

CDS's attorneys supplied me with the following information about patent law:

1. For a patent to be anticipated by the prior art, that prior art reference or device must contain each and every limitation of the claimed invention, either inherently or expressly.

- 2. As to a limitation of a claim for a combination expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support of it, I was told that such claim limitation is construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
- 3. A patent claim is invalid due to obviousness if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.
- 4. I understand that before an obviousness determination is made, the level of ordinary skill in the art must be considered and the differences between the claimed invention and the prior art must be evaluated. I also understand that the secondary indications of non-obviousness, if present, should be considered in an obviousness determination. Such secondary indicia include: commercial success of the claimed invention in which there is a nexus between the commercial success and the claimed invention; long-felt, but unsolved, need for the claimed invention: failure of others to make the claimed invention; copying of the subject matter by others; and unexpected results.
- 5. If the invention is different from what is disclosed in one reference, but the differences are such that combination with another reference would lead to what is claimed, the obviousness question then requires inquiry into whether there is reason, suggestion, or motivation to make that combination. Such suggestion may come:
 - a. expressly from the references themselves;

- b. from knowledge of those skilled in the art that certain references, or disclosures in the references, are known to be of special interest or importance in the particular field;
- c. from the nature of a problem to be solved, leading inventors to look to references relating to possible solutions to that problem; or
 - d. from the very nature of the subject matter involved.

C. Information Considered

During the process of forming my opinions and preparing my report, I have studied the '882 Patent, the prosecution history of the '882 patent, including the original application filed October 12, 1994 (application Serial No. 322,172). I have reviewed all of the prior art references cited to or by the Patent Office during prosecution and additional prior art references, particularly the references cited in this report. I have reviewed documents produced in this case related to the accused CDS product. I have considered the following documents:

- The depositions of John Acres, David Weibenson, Elizabeth Borchard, Alec Ginsberg, and Jose Vega. I also attended portions of the depositions of Jay Stone, and Stephanie Maddocks.
- Exhibits attached to the above depositions and other exhibits associated with CDS' Motion for Summary Judgment of Invalidity.
- 3. The additional references cited in this report.

I have also relied upon my extensive experience with the design and use of digital circuitry, including microprocessors and microprocessor controlled devices.

Should additional evidence related to this report come to my attention in the future, I will examine that as well. Should it become necessary, I will supplement this report.

III. SUMMARY OF OPINIONS

Based on my study as described above, my opinions may be summarized as follow.

- A. It is my opinion that at least Claims 10 and 19 of the '882 patent are anticipated by the prior publication titled "Gaming Innovations Concept III", #2002918 20029932 ("Concept III brochure").
- B. It is also my opinion that at least Claims 10 and 19 of the '882 patent are anticipated by the Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities and Exchange Commission ("Acres SB-2").
- C. It is also my opinion that at least Claim 10 of the '882 patent is anticipated by UK Patent Application GB 2151054A, titled "Systems for playing games", William Neale and Barry Anderson, filed 20 October 1983. (the "Neale application")
- D. It is also my opinion that Claim 19 of the '882 patent would have been obvious at the time of the alleged '882 invention, when the U.K. Patent Application GB2151054A is considered in light of prior casino automation practices.
- E. It is also my opinion that at least Claims 10 and 19 of the '882 patent, if broadly construed are anticipated by the Acres progressive table games (installed in August of 1993 at Rio Suites Casino).
- F. It is also my opinion that all Claims of the '882 patent would have been obvious at the time of the alleged '882 invention to a person of ordinary skill in the art, in view of the following references:
 - 1. Concept III brochure.
 - 2. Acres' SB-2.
 - 3. U.K. Patent Application GB2151054A.

- 4. Acres Concept III accounting and player tracking system (e.g., the system installed at the Winnebago Casinos and other casinos).
- 5. S-Plus machine of IGT.
- 6. Acres progressive table games and software (e.g., the system installed in August 1993 at the Rio Suites Casino).
 - 7. General references relating to networked systems.
- G. It is also my opinion that at least Claims 10 and 19 of the '882 patent are invalid for failure to meet the requirements of 35 U.S.C. §112, 2nd paragraph. The words "command" and "predetermined event" are vague.
- H. It is also my opinion that at least Claims 10 and 19 of the '882 patent were patent ready prior to October 12, 1993. The descriptive materials available to the inventors as of October 12, 1993 provided sufficient information from which to file a patent application so as to support at least claims 10 and 19 of the '882 patent.
- It is also my opinion that there is no consistent standard of enablement for which claims 10 and 19 of the '882 patent would be both enabled by the '882 patent specification and non-obvious in light of the Concept III brochure since this prior Concept III brochure discloses an embodiment of claims 10 and 19 in substantially the same level of detail as the embodiment in the '882 patent specification.
- J. It is also my opinion that Claims 1-19 are not infringed by the accused CDS product.

These opinions cover the claims that Acres has asserted. I may also offer opinions on anticipation of other specific, unasserted claims after discovery is completed in this action.

IV. BASES FOR OPINIONS

A. Overview

Claims 10 and 19 of the '822 patent are directed to an improved method of operating a casino automation system comprising a computer-controlled network of gaming devices. The relevant art is thus computer automation systems in general, and particularly as this art is

applied to automate the functions of a gambling casino. Automation of a casino is the integration of various arts, including digital system design, digital computer design, digital communications, programming, logic design and electrical circuit design. By 1993, one year prior to the filing of the '882 patent application, the computer automation art as applied to casinos was very highly developed. Each of the constituent design disciplines had been highly refined though a long development process spanning thirty years, or more, resulting in an extremely detailed body of reference information describing how to design any automation system, including automation systems for gambling casinos. The experience gained in early automation systems¹ established the standards and design practices upon which present-day systems depend. By 1993, the prevailing standards and practices defined a set of interoperable components and methods from which virtually any system could be realized. For example, for prior communication standards included IEEE standard 802.3, the prevailing standard for Local Area Networks and other peer-to-peer communication. Another prior standard was RS-485 which, when combined with a standard serial data transmission protocol such as HDLC, was a preferred method of communication between a master, or host, computer and a large number of subordinate devices such as casino games or factory machines. At least one technical note recognizes the applicability of these standard systems to casino systems.

Once a computer is joined to a communications network it may exchange messages with other members of the network. Messages may convey status information (e.g., Switch 3 of machine 4 has changed to the closed position) or command information (e.g., Turn on motor 5 of machine 6). Thus, each of the computers on the network could be programmed to be aware of events sensed anywhere on the network and effect an action anywhere on the network, including the reconfiguration of the network or of the devices attached to the network. It has

Airline reservation systems and factory automation systems were well known by, at least, 1965. An early automation system for a casino is disclosed in U.S. patent #4,283,709, titled "Cash Accounting and Surveillance System for Games", Lucero et al., which was filed in 1980.

been a longstanding practice in automation systems to program a host computer to provide real-time supervisory control of a network of machines in the manner described in the '882 patent. In such a system, complex control problems are solved by decomposition to a series of elemental steps which may be readily expressed in a programming language. Each elemental step first performs a test and then performs an action which is conditional upon the outcome of the test. An example of such an elemental step is: IF Switch 3 = "Closed" AND Today = "Tuesday" THEN turn on Motor 4 ELSE continue. The solution of a specific control problem is known as an application program. By October 1993, the level of skill of an application programmer was very high. Given only a specification of the desired results, such a person would know how to write an application program to accomplish any well defined automation task that didn't severely tax the capability of the technology, e. g. limitations of throughput or response time. Further, the skill of the application programmer, or engineer, was very high in 1993 because automation systems share a common set of operating principles, which, once learned, are re-applied to the next application regardless of the controlled object or the specifics of the control action. Thus, many of the limitations of the asserted claims are essential features of most automation systems. For example, there is little difference, in principle, between the methods of the asserted claims and the methods of U.S. patent 5,216,613, titled "Segmented Asynchronous Operation of an Automated Assembly Line, Claude D. Head III, which was filed twenty three years earlier. For each step of the asserted claims, the Head '613 patent describes a like step with respect to a factory assembly-line machine rather than a gaming device

The '882 patent discloses and claims "A method of operating gaming devices interconnected by a host computer having a user-operated input device". There is no material difference between the hardware disclosed in the '882 patent and hardware widely used in prior automation systems, including automation systems for gambling casinos. There is no substantive disclosure in the '882 patent specification regarding how to write a program to accomplish the claimed methods. The limitations of each element of claims 10 and 19 are satisfied by performing steps that are relatively simple and familiar to the person of ordinary

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skill in the art. When the threshold of disclosure for enablement is low, as it must for the asserted claims to be considered enabled, almost any suggestion in the prior art to make the claimed combination would invalidate the claim. The references I have relied upon for anticipation and obviousness substantially exceed my threshold for enablement disclosure because my standard for enablement disclosure is relatively low for the reasons I have previously explained. However, it is my opinion that under any arbitrary, but consistent², standard of enablement, the asserted claims cannot be at once enabled and non-obvious.

B. The Person of Ordinary Skill in the Art

It is my opinion that the relevant art is computer automation systems, particularly as this art is applied to automate the functions of a gambling casino. Further, that a person of ordinary skill in the relevant art would have a Bachelors degree in Electrical Engineering plus at least three years of experience in the design of automation systems. One year prior to the time the '882 patent application was filed, he would be presumed to know the following information:

1. He would understand, and know how to apply well established standards pertaining to the design and operation of computer network, such standards including:

Electronic Industries Association standards RS-232, RS-422, and RS485

American Standard for Computer Information Interchange ASCII

Synchronous Data Link Control - SDLC

High Level Data Link Control - HDLC

High Level Data Link Control standard ISO-3309

Institute for Electrical and Electronic Engineers standard IEEE 802

For example, if the standard of enablement of a claimed method presumed that a skilled person knew how to drive a car, it would be inconsistent to require details regarding the operation of a car door.

2. He would understand and know how to apply the information contained in application notes published by vendors of computer components used in computers and data communication products. Application Note AN-409, "Transceivers and Repeaters Meeting the EIA RS-485 Interface Standard", published by National Semiconductor is illustrative of such publications. It states in part:

The EIA RS-485 standard has found widespread acceptance and usage since its ratification. Users are now able to configure inexpensive local area networks and multi-drop communication links using twisted pair wire and the protocol of their choice.

- 3. He would understand, and know how to apply standard methods of structured programming, particularly as these methods are practiced in automation systems to solve complex control and communication problems.
- 4. He would be knowledgeable regarding prior casino automation systems particularly as those systems are described in the following references:
 - (a) U.S. Patent No. 4,837,728, Barrie et al.
 - (b) U.S. Patent No. 4,072,930, Lucero etal.
 - (c) U.S. Patent No. 4,760,527, Sidley
 - (d) U.S. Patent No. 4,805,907, Hagiwara
 - (e) U.S. Patent No. 4,926,327, Sidley
 - (f) U.S. Patent No. 5,007,649, Richardson
 - (g) U.S. Patent No. 5,078,405, Jones et al.
 - (h) U.S. Patent No. 5,123,649, Tiberio
 - (i) U.S. Patent No. 5,129,652, Wilkinson
 - (j) U.S. Patent No. 5,249,800, Hilgendorf et al.
 - (k) U.S. Patent No. 5,280,909, Tracy
 - (l) U.S. Patent No. 5,286,023, Wood
 - (m) U.S. Patent No. 5,324,035, Morris et al.
 - (n) U.S. Patent No. 5,344,144, Canon

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C. Enablement

A requirement for validity is that the patent specification contains a description of the claimed invention sufficient for any person skilled in the art make and use the invention as claimed. The '882 patent assumes, and in fact requires, a relatively high level of skill to make and use the system described. The specification is a fragmentary description of a very complex system which is lacking in substantive implementation details for essential steps. For example, there is no description of the program required for microcontrollers 248A - 248H, Ref. Fig 12 to perform the '822 communication protocol. The specification merely states that:

Any communication protocol can be used to implement this communication path over the serial communication interface, as is known in the art, Ref. col. 23, Ins. 13-15.

There are multiple levels of communications protocols in a digital network. A message protocol, such as the IGT protocol, CDS 3194-3218, defines the message format used to exchange information. In postal terms, The message protocol is about what is in the letter. The communication protocol in the above reference is a serial data link protocol, which is analogous to the postal system. It functions to automate the exchange of messages over the network, i. e., electronically perform the functions of; checking for outgoing messages, determine the addressee of the message, and deliver the message to the intended addressee.

It is true that there were several well known serial data link protocols, however the implementation of any one of these in a general purpose microcontroller would be much more difficult than programming the steps required by the asserted claims. It was well recognized in the art that serial data link communication protocols are a demanding task and that a general-purpose controller, as taught by the '882 patent specification, is an inefficient method of implementation. Rather, serial data link protocols are typically implemented with a specialized device dedicated to that function. A principal rationale for a pre-programmed specialized device is to unburden the designer from the relatively complex task of programming the data link protocol. The data sheet for the Intel 8273 Programmable HDLC/SDLC Protocol

Controller, Intel Corporation, 1984, my Exhibit A, is illustrative of such a prior-art specialized device. It is also indicative of the complexity of serial data link protocols. I don't yet know what '882 implementation details, if any, the plaintiff contends are necessary for enablement of the asserted claims. However, it is my intention at trial to compare these contentions with all of the essential, but unexpressed, implementation details required to practice the methods as described in the '882 patent specification.

D. Claims 10 and 19 of the '882 patent are anticipated by the prior publication titled "Gaming Innovations Concept III", #2002918 - 20029932

The following element-by-element analysis of claim 10 compares the corresponding teaching of the '882 patent specification and the Concept III document (Weibenson Deposition Exhibit 3). While I have relied upon the entire teaching of both disclosures in forming my opinion, I have cited only the text which I consider to be most pertinent:

1. Preamble

Claim 10:

A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:

882 Patent Specification.

"A system for monitoring and configuring gaming devices interconnected over a high-speed network is disclosed. The system can support a file server, one or more floor controllers, one or more pit terminals, and other terminals all connected over the network", abstract, see also Fig.1.

"The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible personal computers", col. 7, lns. 26-27.

"... each floor controller is equipped with a communication board 246, as shown in Fig. 12", col. 19, lns. 18-19.

"The communication board 246 includes eight separate microcontrollers 248A-348H. . . . Each microcontroller is responsible for two current loop networks." col. 19, lns. 29-42.

Concept III:

"Concept III eliminates the dual cost of hardware and provides an integrated system to provide all your information and promotional needs", #2002922.

"Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personnel computer", #2002923.

"Four wire cable (uses standard RJ-11 phone connectors) up to 1,000 machines per floor controller", notation on the graphic titled Gaming Innovations Data Collection System Overview, #2002928

AutoScans are connected through an optically isolated four wire cable to a Floor Controller. Each Controller can manage up to 1000 AutoScan units. Up to eight Floor controllers, a total of 8000 machines are allowed in a single casino. #2002931.

"AutoScan mounted inside each machine", another notation on the graphic #2002928.

"Our system includes support for all types of electronic machines, including the most advanced units with serial "interfaces". These machines send activity information as complex signals over a single pair of wires. The result is more accurate and detailed information, but it takes a fast system like AutoScan to properly record it.", #2002929.

Concept III discloses the claim 10 preamble. Such systems were well known. A person skilled in the art would be able to make such a system.

2. Associating

Claim 10

associating each gaming device with a unique address code;

'882 Patent Specification:

"The floor controller communicates with the DNCs by using a standard communication protocol. In the preferred embodiment this protocol defines a message format including a destination ID, a source ID, a message length, a data packet and a CRC," col. 34, lns. 36-39.

Concept III:

"Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system", #2002929

"Connections are made to each machine with telephone style RJ-11 modular jacks. This makes system installation and maintenance easy. When it comes time to move a machine, simply unplug its power cable, unsnap the data connector and move the machine. The whole disconnection process takes only a few seconds and requires no special skills. All other machines in the system continue to function normally," #2002931.

This step is taught in the Concept III. It is accomplished by associating a gaming device with a network ID, a unique address code which distinguishes the network node of the instant gaming device from all other nodes. A unique ID is an essential feature of all computer networks. The Concept III disclosure shows this step.

3. <u>Preselecting</u>

Claim 10:

preselecting less than all of the gaming devices connected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

'882 Patent Specification:

"The system provides the capability for the casino to select which of the plurality of machines are used in any given promotion. The system further allows any number of different promotions to operate simultaneously", col. 20, lns. 2-6.

Concept III:

"You select which machines are used in which promotions, connect your signage and information displays (if any), and begin operation. Concept III allows any number of different promotions to operate simultaneously." (Id. pg. 2)

"You can set up the system to only pay Double Jackpots to customers playing maximum coins, or pay double only on awards above a specified amount." (Id. pg. 3)

"You simply type in which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc." (Id. pg. 3)

The step of preselecting is another well known, if not inherent, step of the computer networking art. Preselection, as taught and claimed by the '882 patent, is known more generally as remote reconfiguration. It accomplishes by software reconfiguration acts which required physical actions in earlier systems and had become a preferred method for computer network systems. This step is both taught and enabled by the Concept III disclosure.

4. <u>Network Tracking</u>

Claim 10:

using the network to track activity of the preselected gaming device;

'882 Patent Specification:

"Each transaction, whether it be a coin in a handle pull, etc., is recorded by the system." Col. 3, lns. 34-35.

"Each floor controller is responsible for monitoring the activity level of the corresponding gaming devices connected thereto and . . . The floor controllers issue status requests to each of the individual gaming devices to determine the activity level of each. In the event the floor controller detects any activity, the floor controller communicates that activity to a file server 32. . ." Col. 7, lns. 27-36.

"Together, the data communication node 42 and the player tracking module 44 allow the floor controller connected to the associated gaming device to monitor and control the activity of the gaming device." Col. 8, lns. 55-59.

"The floor controller is responsible for monitoring the activity of each of the gaming devices connected thereto and reporting this activity to the database. . ."

Col. 19, lns. 4-6.

"The first is a request for data from the DCN. If this type of message is detected the DCN builds the data requested and transmits the data in a reply message. The main use of this message type is to gather status and meter information from the DCN." Col. 24, Ins. 61-65.

"The first type of message can be one which includes a new meter information. The floor controller checks in step 498 to determine whether the message includes this type of information. If the message includes new meter information, the floor controller saves the new meter information locally in step 500. The floor controller maintains local copies of the meter information in

order to minimize the amount of traffic on the high-speed network. Because the machine meters change so rapidly, forwarding this new meter information on to the file server each time one of these meters is altered would produce an excessive amount of network traffic on the high-speed network. Therefore, in the preferred embodiment, the floor controller saves this new meter information locally in step 500 and only forwards the new information on to the file server after a predetermined amount of time has elapsed." Col. 33, lns. 31-46.

"The floor controller also monitors the locally-stored meter information in step 528. If the locally-stored information is changed, the floor controller saves the latest information to the data base in step 530. As described above, the floor controller saves the meter information locally in order to minimize the traffic to the file server over the high speed network. Col. 35, lns. 30-36.

Concept III:

"Since Concept III monitors slot activities, it collects all information required for proper slot accounting reports." (Id. pg. 4)

"Concept III also records how long the customer spends at each machine and records the number of coins won, counts games played and hand paid jackpots won." (Id. pg. 5)

Tracking the activity of gaming devices attached to a network is another well known feature of prior casino automation systems. The Concept III disclosure both teaches and enables tracking of the activity of a preselected device, or devices. The patent itself also admits that networked tracking and accounting systems for gaming devices are "known in the art." Col. 1, line 13.

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5. <u>Issuing Command</u>

Claim 10:

issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and

'882 Patent Specification:

"Each promotion involves sending a reconfiguration command from the floor controller to a gaming device that has been selected to be part of a given promotion over the associated network. Col. 2, lns. 66-67 to Col. 3, lns. 1-2.

"Remote reconfiguration includes sending a reconfiguration command from a host computer to one or more of the gaming devices." Col. 6, Ins. 35-37.

". . . issuing commands to the associated gaming devices to reconfigure their payout schedules during certain bonusing events." Col. 7, lns. 30-32.

"The serial machine interface is the means by which the DCN controller communicates certain reconfiguration data referred to as reconfiguration commands to the machine. These reconfiguration commands..."Col. 10, Ins. 2-6.

Concept III

"We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to pay money from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through displays mounted on the machine [1] (Id. pg. 1-2)

"AutoScan provides full accounting of bonus payments and requires no human intervention for bonus award payments." (Id. pg. 2)

I consider the limitation of predetermined event to be indefinite because of the variety of events described in the '882 specification and the ambiguity of the adjective "predetermined". In the context of a real-time computer system, a predetermined event is generally considered to be an event which happens at a predetermined time. All other events such as a jackpot win, are asynchronous events. However, an asynchronous event could be considered to be predetermined by programming as to type, meaning, or association with a predetermined action without regard for when it occurs. Under this broad construction a network polling command would correspond to this step. This ambiguity is material because without a definite scope for a "predetermined event" it is not possible to determine which of the many commands taught by the '882 specification are responsive to this step. If the claim is construed, in light of the specification, to have a definite meaning then this step must include: issuing a reconfiguration command to reconfigure the payout schedule of a gaming device as described in the patent abstract. The Concept III disclosure teaches and enables this step. It is my understanding that by 1993 the S-Plus Slot Series of machines were commercially available from IGT and that these machines could be commanded to automatically reconfigure a jackpot payout level. Not withstanding the gaming regulatory obstacles to gaining approval to be allowed to perform this step, the commercial availability of the S-Plus machine provides further support for my opinion.

6. Paying

Claim 10.

paying at said one gaming device in accordance with the command

'822 specification

"Thus, it would be desirable to reconfigure the under utilized gaming devices to provide an additional incentive to players to use these devices. In the past casinos have run "bonuses" during these times. An example of such bonuses include a "double jackpot" wherein a player hitting a jackpot is paid double the

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jackpot amount. Currently this is implemented by having an attendant manually payout the additional payout amount. This manual technique, however, is cumbersome and inefficient to administer because an attendant must be constantly supervising the bonusing gaming devices. Accordingly, a need remains for an automated method and apparatus to provide bonusing for gaming devices." Col. 2, lns. 11-23.

"Upon receipt of the reconfiguration command, the gaming device reconfigures its payout schedule in accordance with the received reconfiguration command. In the preferred embodiment, this reconfiguration includes activating a bonus payout schedule. A partial list of the promotions according to the invention include, but are not limited to: a multiple jackpot wherein the gaming device reconfigures its payout to be a multiple of its default payout schedule; a bonus jackpot wherein the gaming device reconfigures its payout schedule to payout an additional bonus amount when certain conditions are met; and a progressive jackpot wherein two or more gaming devices are combined in a progressive jackpot having a progressive jackpot payout schedule." Col. 3, lns. 2-15.

"The gaming devices, on receiving a reconfiguration command, will reconfigure its jackpot payout schedule in accordance with the reconfiguration command.

This reconfiguration, in the preferred embodiment, comprises activating a bonus payout schedule. This bonus payout schedule is in addition to the normal pay table of the gaming device." Col. 6, Ins. 37-43.

"... cause the machines to activate a bonus payout table to allow the machine to append bonus payments to their standard jackpot payouts, as specified by their payout table, during certain bonus activities." Col. 10, lns. 6-9.

"As described above, reconfiguring a gaming device payout schedule, in the preferred embodiment, includes activating a bonus payout schedule that pays out bonus amounts in addition to the amount determined by the device payout table.

A partial list of the promotions according to the invention include, but are not limited to: a multiple jackpot wherein the gaming device reconfigures its payout to be a multiple of its default payout schedule; a bonus jackpot wherein the gaming device reconfigures its payout schedule to payout an additional bonus amount when certain conditions are met; and a progressive jackpot wherein two or more gaming devices are combined in a progressive jackpot having a progressive jackpot payout schedule. In addition to these, many other promotions are possible by the above-described system for controlling and monitoring a plurality of gaming devices." Col. 20, lns. 13-30.

Concept III

"Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts." (<u>Id. pg. 2</u>).

I construe this step to require automatic payment of a bonus amount. The Concept III disclosure teaches and enables this step. It is my understanding that the S-Plus machine can be commanded to automatically pay a lower level progressive jackpot from the game hopper. Not withstanding the gaming regulatory obstacles to gaining approval to be allowed to perform this step, the commercial availability of the S-Plus machine provides further support for my opinion. In addition, IGT's implementation of specific protocols to accomplish this feature by September 3, 1993 shows that one of ordinary skill had the requisite ability to accomplish this objective in 1993. CDS 3194-3218

7. Allocating

Claim 19

19. The method of claim 1 wherein said method further comprises allocating a predetermined percentage of the cumulative amount wagered at all of the

preselected gaming devices to a bonus pool and wherein paying at said one gaming device in accordance with the command comprises paying said pool at said one gaming device.

'882 Specification

"Another reconfiguration command allows any number of machines on the network to be combined in a common jackpot having a common jackpot payouot schedule, wherein the reconfiguration command reconfigures the selected machines to payout in accordance with the common jackpot payout schedule. In this case, the reconfiguration message would be queued up for each of the selected machines to be combined in a common jackpot. One example of a common jackpot is a progressive jackpot. Unlike the prior art progressive jackpot systems, however, the progressive jackpot according to the invention is not limited to a predetermined number of machines. In the prior art progressive jackpot systems, a bank of machines are connected to a common progressive jackpot controller and only those machines can be included in the progressive jackpot. In contrast, any machine on the network including those connected to other floor controllers can be combined into a common progressive jackpot. Moreover, the number of progressive jackpots is not limited by the number of floor controllers since one floor controller can manage more than one progressive jackpot." Col. 36, lns. 16-36.

Concept III

Standard progressive jackpots are also possible. Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personal computer. You simply type in which machines are connected to which

links and describe the starting jackpots amounts, increment rates, limits if any, etc. Then you can mount jackpot displays anywhere in the casino. All you have to do is set the display to match the jackpot number it is to display. Up to 64 separate jackpots are allowed. #2002923.

The claimed step of allocating merely states the method used by prior progressive games to determining the value of the progressive jackpot. This step is taught by the Concept III disclosure.

The Concept III disclosure is enabled because the step of allocating money to a progressive jackpot was well known and well within the skill of the artisan in 1993.

My conclusion that the Concept III is an enabled, anticipatory reference is further supported by comparison of the technical particulars disclosed by the '882 patent with those taught by Concept III.

The following element-by-element analysis of claim 10 compares the corresponding teaching of the '882 patent specification and Concept III (Weibenson Deposition Exhibit 3). While I have relied upon the entire teaching of both disclosures in forming my opinion, I have cited only the text which I consider to be most pertinent:

1. Preamble

Claim 10:

A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:

*882 Patent Specification

"A system for monitoring and configuring gaming devices interconnected over a high-speed network is disclosed. The system can support a file server, one or more floor controllers, one or more pit terminals, and other terminals all connected over the network", abstract, see also Fig.1.

"The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible personal computers", col 7, lns 26-27.

"... each floor controller is equipped with a communication board 246, as shown in Fig. 12", col 19, lns 18-19.

"The communication board 246 includes eight separate microcontrollers 248A-348H. Each microcontroller is responsible for two current loop networks." col. 19, lns. 29-42.

Concept III:

"Concept III eliminates the dual cost of hardware and provides an integrated system to provide all your information and promotional needs", #2002922.

"Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personnel computer", #2002923.

"Four wire cable (uses standard RJ-11 phone connectors) up to 1,000 machines per floor controller", notation on the graphic titled Gaming Innovations Data Collection System Overview, #2002928

AutoScans are connected through an optically isolated four wire cable to a Floor Controller. Each Controller can manage up to 1000 AutoScan units. Up to eight Floor controllers, a total of 8000 machines are allowed in a single casino, #2002931. "AutoScan mounted inside each machine", another notation on the graphic

#2002928

"Our system includes support for all types of electronic machines, including the most advanced units with serial "interfaces". These machines send activity information as complex signals over a single pair of wires. The result is more accurate and detailed information, but it takes a fast system like AutoScan to properly record It.", #2002929.

Comparison:

Both disclosures are a high level description of the same embodiment. The differences regarding details of implantation are insubstantial. A skilled person would consider the Concept III network interconnecting a floor controller with up to 1000 machines to be a four-wire multi-point bus. The industry standard for this class of network is RS-485. Various RS-485 products were available which are the equivalent of the '882 embodiment and which incorporate substantially all of the '882 implementation details. The MPL 4215-2 Octal RS-485 Interface Card, Ex __, and the VersaLogic VL7315, Ex __, are illustrative of such products. Thus, The Concept III disclosure is no less enabling than the '882 patent specification regarding the design of a network comprising gaming machines and a host computer.

2. Associating

Claim 10:

associating each gaming device with a unique address code;

*882 Patent Specification:

"The floor controller communicates with the DNCs by using a standard communication protocol. In the preferred embodiment this protocol defines a message format including a destination ID, a source ID, a message length, a data packet and a CRC col. 34. Ins. 36-39.

Concept III

"Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system", #2002929

"Connections are made to each machine with telephone style RJ-11 modular jacks. This makes system installation and maintenance easy. When it comes time to move a machine, simply unplug its power cable, unsnap the data connector and move the machine. The whole disconnection process takes only a few seconds and requires no

special skills. All other machines in the system continue to function normally." #2002931.

Comparison:

All computer networks require that each communicating node, such as a gaming machine be associated with a unique address code which is their network ID. When the gaming machine is the originator of a message it identifies itself as the sender by placing its unique address code in the source ID field of the message. It also screens all messages it receives, responding to only those for which the destination ID matches the unique address code. It is my opinion that the step of associating is accomplished when a gaming machine is logged on to a network by any of the means known in the data communications art which may be manual, semi-automatic or automatic. There is no limitation in claim 10 that a gaming machine have an additional unique identity such as a machine house number³, nor that any assignment of an association be accomplished automatically as taught in the '822 specification. However, even if the step of associating is narrowly construed to require automatic assignment of the association in the manner taught by the '882 patent a person skilled in the art is also taught that step by the Concept III disclosure. Since the step of associating is a well, known, if not inherent, step in the computer networking art a skilled person needs no detailed instructions to accomplish the step. The Concept III disclosure is thus no less enabling than the '882 patent specification regarding the design of a network of gaming devices.

3. <u>Preselecting</u>

Claim 10

preselecting less than all of the gaming devices connected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

Seé also col. 24, Ins. 18-22

'882 Patent Specification:

"The system provides the capability for the casino to select which of the plurality of machines are used in any given promotion. The system further allows any number of different promotions to operate simultaneously", col. 20, lns. 2-6

Concept III:

"You select which machines are used in which promotions, connect your signage and information displays (if any), and begin operation. Concept III allows any number of different promotions to operate simultaneously." (Id. pg. 2)

"You can set up the system to only pay Double Jackpots to customers playing maximum coins, or pay double only on awards above a specified amount." (Id. pg. 3)

"You simply type in which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc." (Id. pg. 3)

Comparison:

Both disclosures describe performing the claimed step of preselecting without describing how to perform it. The step of preselecting is another well known, if not inherent, step of the computer networking art. Even if the limitation of "less than all" is narrowly construed to require more than one preselected device it is nevertheless a step that is routinely practiced in computer network systems, such as Novell netware products. Nor is there any uncertainty about how to accomplish preselection of devices. Task oriented polling tables and other forms of table lookup techniques are well known and extensively used. It is thus my opinion that enablement of this claim element doesn't require a disclosure of how to accomplish this step and that the Concept III disclosure is no less enabling than the '882 patent. If enablement did require instruction regarding how to perform the claimed step of "preselecting less than all of the gaming devices responsive to a user-effected action" the '882 specification does not provide that instruction. The only description of how anything is done responsive to a user-effected action states:

"The process 464 also includes a system monitoring step 474. This system monitoring step 474 administers certain system-wide events. These system-wide events include the counting-related events and bonusing events. The floor controller

continuously checks to see whether any of these events have been triggered. If any event has been triggered, such as a bonusing event, the floor controller takes the appropriate action to handle the event. The event may be triggered by the time and day or by user intervention or other event. The system monitoring step 474 will be described further below with reference to FIGS 32 and 33."

Col. 32, lns. 18-28 (emphasis added). It would be difficult to say less.

4. "Network Tracking" through "Allocating"

The comparisons made above show a similar level of disclosure for the '882 patent versus the Concept III regarding the claimed steps.

E. Claims 10 and 19 of the '882 patent are anticipated by the Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities and Exchange Commission.

The Acres Form SB-2, submitted prior to the statutory bar period, states in part:

progressive jackpot systems and bonusing systems, which provide players with opportunities for additional play and special payouts, are designed to enhance interest in the machines and games to which they are attached. Progressive jackpot systems for slot machines link a number of slot machines to generate a collective jackpot. The Concept III progressive jackpot system permits flexible programming, enabling the casino manager to determine which machines are to be linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rate of increment, and limits, if any, on the jackpot. The flexibility provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions.

* * *

Bonusing programs, such as double jackpots at certain times of the day, have been used successfully by many casinos to increase play at slot machines. Traditional bonusing programs, however, have required extensive administrative effort to manage. Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs. In addition, the Concept III technology enables a casino to establish other parameters for bonusing programs, such as allowing a double jackpot or other bonusing program to operate on a random basis, or to operate only when a minimum level of activity is present, Ref. pg. 3.

To a person of ordinary skill in the art this is an enabling teaching to build a fully automatic, reconfigurable system to perform the well known promotions which had previously required manual intervention for at least one of the steps.

I have reviewed, analyzed, and incorporated into my opinion paragraphs 9-14 of Michael Bennett's Declaration dated September 17, 1998, which breaks down claim 10 of the '882 patent and shows each element in the SB-2. The "allocating" step of claim 19 (progressives) is shown by the SB-2's disclosure of "progressives" throughout the document.

There is no ambiguity regarding what to do. A person of ordinary skill would have known how to realize a system which "permits flexible programming, enabling the casino manager to determine which machines are to be linked to the progressive jackpot" and "enables the casino to automate the payment of and accounting for double jackpot and other bonus programs" for the reasons I have already stated.

F. Claim 10 is anticipated and Claim 19 is obvious in view of the U.K. Reference

Claim 10 of the '882 patent is anticipated by UK Patent Application GB 2151054A, titled "Systems for playing games". William Neale and Barry Anderson, filed 20 October 1983, (the "Neale application"). I have considered the claim analysis of the Neale application set forth by Michael Joseph Bennett in his declaration of September 17, 1998. I concur with his analysis and incorporate it by reference as support for my opinion.

Claim 19 of the '882 patent would have been obvious when the Neale application is considered in light of other prior art automation practices, such as prior art progressive systems, accounting and player tracking systems, and Acres' own Concept III product literature.

G. Claims 10 and 19 were patent ready "as of October 12, 1993

I understand that a determination of "on sale" requires that two conditions are satisfied. First, the product must be the subject of a commercial offer for sale. Second the invention must be ready for patenting. An invention is ready for patenting if the inventor has prepared drawings or other descriptions that were sufficiently specific to enable a person skilled in the art to practice the invention. I am aware of no facts that indicate that the Treasure Island purchase order # (GPM)

003241 and 42) indicates that anything other than an offer for sale was made for the inventions of 1 claims 10 and 19 for commercial use. I am aware of no facts that indicate that the Progressive 2 Game System for the Rio Casino, Vega Dep. Ex. 191, was anything other than a sale of the 3 subject matter of claims 10 and 19 for commercial use. I have already explained why the Concept 4 5 III brochure, by itself would have been enabling. Plainly, the inventor possessed documents detailing how to accomplish the methods described in the Concept III brochure. The documents 6 7 produced to date are more than sufficient to show the claimed inventions to be ready for patenting. 8 The following references, when considered collectively, provide a description of the claimed 9 inventions which are at least as enabling as the '882 specification: 10 Concept III disclosure, Wiebenson Dep. Ex. 3. All other Concept III disclosures prior to October 12, 1993. 12 Firmware listing TPRGVARS.SRC, Vega Dep. Ex. 193. Caribbean Stud Progressive Project, Vega Dep. Ex. 194. 13 Control Box Schematic, Vega Dep. Ex. 195. 14 Table Game Progressive Installation Instructions, Vega Dep. Ex. 197 16 Concept III Protocol, Vega Dep. Ex. 198 SB-2 Registration Statement. Acres Production Nos. 2001659-63. Acres Production Nos 2001654-58 Acres Production Nos. 2002241-58

Acres Production Nos 2002222-31

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Acres Production Nos 2001572-73

Acres Production Nov. 2002217-21

Acres Production Nos 2001655-68

Schematics of the AutoScan and Video Display Drive B.

I understand that a 30(b)(6) deposition has been noticed that should require Acres to more particularly identify pertinent schematics and software, and as those items come to light I will

incorporate them into my opinion. These documents contain all the technical information necessary to prepare a patent application enabling claims 10 and 19.

H. Acres Progressive table games

I understand that Acres sold and installed its progressive table games by August of 1993 at Rio Suites Casino. Claims 10 and 19 recite "gaming devices." Acres progressive table games are "gaming devices." Each table is a gaming device. Each of the elements of claims 10 and 19, if broadly construed, are found in the Acres progressive table games.

1. Obviousness

The U.K. Patent Application shows a complete reconfigurable gaming system having a host computer with networked games. It would have been obvious to combine the teaching of the U.K. patent application with the Barrie patent (U.S. Patent No. 4,837,728) which teaches a progressive slot machine system. Such a combination meets the limitations of at least claims 10 and 19 of the '882 patent.

In addition, a suggestion in the art to make the combination is expressly found in each of the following:

- 1. The automation art in general
- 2. Concept III brochure.
- 3. SB-2 Form.
- 4. Rio Suite Progressive Table game system. (Describing a network of gaming machines that can be modified without changing the hand-wired configuration).
 - 5. S-Plus IGT machines and machine brochure.

Numerous other permutations and combinations of references are possible. I plan on selecting specific combinations for use at trial based on the claim scope ultimately decided by the Court, and I plan on showing that all claims of the '882 patent are anticipated and/or obvious.

Regarding secondary considerations, I am aware of no commercial success, long-felt need, rapid adoption, copying, or other factors that would suggest non-obviousness. I am aware of CDS' prior work developing the "Fastest Cash" system which, according to my present understanding contains every element of claims 10 and 19, if broadly construed. I am also aware that CDS' engineers began work on at least some features of the accused "Pro-Turbo" system prior to Acres' filing date, and depending on what proof of conception and diligent reduction to practice is offered by Acres. I may supplement my opinion to add opinions regarding prior inventorship under 35 U.S.C. §102(g).

J. Claims 1-19 are not infringed

In my rebuttal report I will respond specifically to any statements made by Acres experts that the claims are infringed by the products of CDS. At a minimum, each of the claims require a payout at the hopper responsive to a command. The accused CDS product does not meet this claim requirement.

K. Materiality

I understand that CDS is contending that Acres withheld material prior art from the examiner. I have examined the Concept III and SB-2 documents and can find no reference to them in the file history. They are plainly material as I have shown above. In my own experience, the

inventor's own literature is precisely the material that is most likely to be pertinent to the examiner, especially if it teaches the claimed invention and/or suggests that the invention was on_sale.

VI. EXHIBITS

At trial, I may rely on all the documents referred to in this report, and I may use them as exhibits. I also reserve my right to prepare additional exhibits for trial explaining various aspects of my opinions.

It is likely that I shall use demonstrative exhibits in connection with my testimony and to support my opinions. Such exhibits shall be prepared by me or others under my direction. Such exhibits shall demonstrate at least a comparison between the '882 patent and one or more of the references referred to in this report. I cannot determine the full scope of such exhibits until I review the reports of Acres' experts. For example, I may use colorized claim charts, colorized prior art documents, colorized '882 patent, etc., similar to the exhibits to CDS' Motion for Summary Judgment.

VII. COMPENSATION TO BE PAID AND CASES IN WHICH I HAVE APPEARED

I am compensated for my expenses plus an hourly fee. The hourly fee is \$120 except for time out of my office, including travel depositions and trial, for which my fee is \$200 per hour.

IV. OTHER CASES

CASE:

Laitram vs. NEC

SUBJECT:

LED printer (similar to a laser printer)

REPRESENTING:

Laitram

| FIRM/ATTY.:

McAndrews Held & Malloy/Lawrence Jarvis

INVOLVEMENT:

declaration, deposition, operable model,

testified

| 1 | CASE: | Nilssen vs. Honeywell |
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| 2 | SUBJECT: | wall mounted timer switch |
| 3 | REPRESENTING: | Honeywell |
| 4 | FIRM/ATTY.: | Allegretti & Witcoff/Sheldon Witcoff |
| . 5 | INVOLVEMENT: | declaration, deposition, operable model |
| 6 | | |
| 7 | CASE: | Honeywell v. Jameson et al. |
| 8 | SUBJECT: | set-back thermostat |
| 9 | REPRESENTING: | Honeywell |
| 10 | FIRM/ATTY.: | Arnold, White & Durkee (later, Fish & Richardson)/Michael Sutton |
| | INVOLVEMENT: | declaration, deposition, testing, video of test results |
| 11 | | |
| 12 | CASE: | Valley vs. Arachnid |
| 13 | SUBJECT: | computer controlled dart games |
| 14 | REPRESENTING: | Arachnid |
| 15 | FIRM/ATTY.: | McAndrews, Held & Malloy/John Held |
| 16 | INVOLVEMENT: | declaration, deposition |
| 17 | | |
| 18 | CASE: | Hewlett-Packard v GenRad |
| 19 | SUBJECT: | in-circuit testers |
| 20 | REPRESENTING: | GenRad |
| 21 | FIRM/ATTY.: | Cesari and McKenna Robert Cesari |
| 22 | INVOLVEMENT: | analysis, operable model, declarations, deposition, testified. |
| 23 | · | |
| 24 | CASE: | M. T. McBrian |
| 25 | SUBJECT: | HVAC control systems |
| 26 | REPRESENTING: | M. T. McBrian |
| 27 | FIRM/ATTY.: | McBride Baker and Coles/ Robert W. Queeny |
| İ | INVOLVEMENT: | declaration, deposition |
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| 2 | SUBJECT: | Opthalmic Microsurgical Controller |
| 3 | REPRESENTING: | Storz |
| 4 | FIRM/ATTY.: | McAndrews Held and Malloy/ Lawrence M. Jarvis |
| 5 | INVOLVEMENT: | declaration, expert witness report, testified |
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| 9 | | LEROY A PROHOFSKY |
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| 1 | | Certificate of Service | | | | | |
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| 2 | I hereby certify that a copy of the foregoing EXPERT WITNESS REPORT OF LEROY | | | | | | |
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| 21 | Dated: February 16, 1999 | Clairdatta Doss | | | | | |
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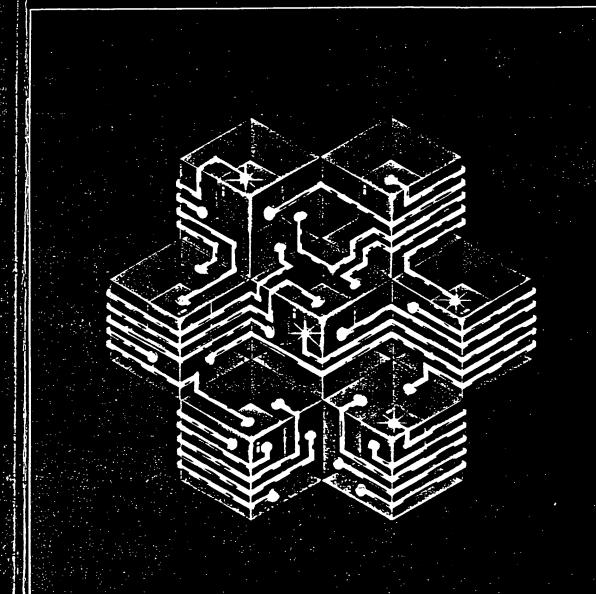
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Microsystem Components Handbook

Microprocessors and Peripherals Volume II



Order Number: 230843-00

MICROSYSTEM COMPONENTS HANDBOOK

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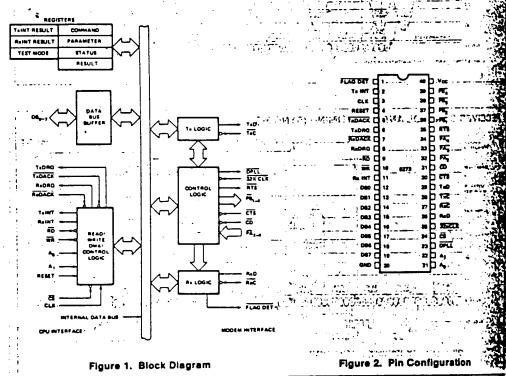
EFORMS (Confinued)

8273, 8273-4 ROGRAMMABLE HDLC/SDLC PROTOCOL CONTROLLER

- **CCITT X.25 Compatible**
- HDLC/SDLC Compatible
- Full Duplex, Half Duplex, or Loop SDLC Operation
- Up to 64K Baud Synchronous Transfers (56K Baud with 8273-4)
- Automatic FCS (CRC) Generation and Checking
- Up to 9.6K Baud with On-Board Phase Locked Loop

- Programmable NRZI Encode/Decode
- Two User Programmable Modem Control Ports
- Digital Phase Locked Loop Clock Recovery
- Minimum CPU Overhead
- Fully Compatible with 8048/8080/8085/ 8088/8086/80188/80186 CPUs TIME AARE
- Single +5V Supply

The Intel® 8273 Programmable HDLC/SDLC Protocol Controller is a dedicated device designed to support the Sta CCITT'S HDLC and IBM's SDLC communication line protocols. It is fully compatible with Intel's new high performance microcomputer systems such as the MCS1 88/186*. A frame level command set is achieved by a unique microprogrammi dual processor chip architecture. The processing capability supported by the 8273 relieves the system CPU of the law level real-time tasks normally associated with controllers.



DINTEL CORPORATION, 1984

6-20

A BRIE PROTO

General

The High I communic Standards used to im The Synch communic System Ne are bit ori duplex cc Include ter CPU, satell high speed cabling ar protocols (serial), the Since both Interconne

application Network In both the pre-assign controls t commands latter comi appropriate station mu ABORT ch receiving s FRAME. Ti transmittin FLAGS or not permit

an IDLE st Frames A single co can be us purposes. bit FLAG (I an eight bi FIELD (C), sixteen bit eight bit er beginning bytes are e

more that I

70 A

code/Decode Modem

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op Clock

48/8080/8085/ -PUs and white .

1 to support the ISO ew high performance; jue microprogrammed: ystem CPU of the low;

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ORDER NUMBER: 210479-002

ABRIEF DESCRIPTION OF HDLC/SDLC PROTOCOLS ...

Adding the sale

General

The High Level Data Link Control (HDLC) is a standard communication link protocol established by international Sandards Organization (ISO). HDLC is the discipline med to implement ISO X.25 packet switching systems.

The Synchronous Data Link Control (SDLC) is an IBM communication link protocol used to implement the System Network Architecture (SNA). Both the protocols me bit oriented, code independent, and ideal for full suplex communication. Some common applications include terminal to terminal, terminal to CPU, CPU to CPU, satellite communication, packet switching and other high speed data links. In systems which require expensive abling and interconnect hardware, any of the two protocols could be used to simplify interfacing (by going erial), thereby reducing interconnect hardware costs. Since both the protocols are speed independent, reducing nterconnect hardware could become an important و ن م application." Network Actions and Action

h both the HDLC and SDLC line protocols, according to a pre-assigned hierarchy, a PRIMARY (Control) STATION controls the overall network (data link) and issues commands to the SECONDARY (Slave) STATIONS. The latter comply with instructions and respond by sending appropriate RESPONSES. Whenever a transmitting nation must end transmission prematurely it sends an ABORT character. Upon detecting an abort character, a nceiving station ignores the transmission block called a FRAME. Time fill between frames can be accomplished by transmitting either continuous frame preambles called FLAGS or an abort character. A time fill within a frame is not permitted. Whenever a station receives a string of more that fifteen consecutive ones, the station goes into en IDLE state.

Asingle communication element is called a FRAME which can be used for both Link Control and data transfer purposes. The elements of a frame are the beginning eight. bit FLAG (F) consisting of one zero, six ones, and a zero, an eight bit ADDRESS FIELD (A), an eight bit CONTROL FIELD (C), a variable (N-bit) INFORMATION FIELD (I), a sixteen bit FRAME CHECK SEQUENCE (FCS), and an eight bit end FLAG (F), having the same bit pattern as the teginning flag. In HDLC the Address (A) and Control (C) bytes are extendable. The HDLC and the SDLC use three

.6.

types of frames; an information Frame is used to transfer data, a Supervisory Frame is used for control purposes, and a Non-sequenced Frame is used for initialization and control of the secondary stations. :14

100 W.

Frame Characteristics

An important characteristic of a frame is that its contents are made code transparent by use of a zero bit insertion and deletion technique. Thus, the user can adopt any format or code suitable for his system — it may even be a computer word length or a "memory dump". The frame is bit oriented that is, bits, not characters in each field, have specific meanings. The Frame Check Sequence (FCS) is an error detection scheme similar to the Cyclic Redundancy Checkword (CRC) widely used in magnetic disk storage devices. The Command and Response information frames contain sequence numbers in the control fields, identifying the sent and received frames. The sequence numbers are used in Error Recovery Procedures (ERP) and as implicit acknowledgement of frame communication, enhancing the true fullduplex nature of the HDLC/SDLC protocols.

In contrast, BISYNC is basically half-duplex (two way) alternate) because of necessity to transmit immediate acknowledgement frames. HDLC/SDLC therefore saves propagation delay times and have a potential of twice the throughput rate of BISYNC. - Price -

It is possible to use HDLC or SDLC over half duplex lines but there is a corresponding loss in throughput because both are primarily designed for full-duplex communication. As in any synchronous system, the bit rate is determined by the clock bits supplied by the modem, protocols themselves are speed independent.

A byproduct of the use of zero-bit insertion-deletion technique is the non-return-to-zero invert (NRZI) data transmission/reception compatibility. The latter allows HDLC/SDLC protocols to be used with asynchronous data communication hardware in which the clocks are derived from the NRZI encoded data.

References

IBM Synchronous Data Link Control General Information, IBM, GA27-3093-1.

Standard Network Access Protocol Specification, DATAPAC, Trans-Canada Telephone System CCG111

Recommendation X.25, ISO/CCITT March 2, 1978. IBM 3650 Retail Store System Loop Interface OEM Information, IBM, GA 27-3098-0

Guidebook to Data Communications, Training Manual, Hewlett-Packard 5055-1715

IBM Introduction to Teleprocessing, IBM, GC 20-8095-02 System Network Architecture, Technical Overview, IBM, GA 27-3102 System Network Architecture Format and Protocol, IBM GA 27-3112

| OPENING FLAG (F) | ADDRESS | CONTROL FIELD (C) | INFORMATION FIELD (I) | FRAME CHECK CLOSING SEQUENCE (FCS) FLAG (F) | _ |
|---------------------|---------------|----------------------|--------------------------|---|---|
| 9.10 | 10 3 STB BITS | 8 BITS " | VARIABLE LENGTH | 011,11110 19 1 110 110 151 - | |
| 19 174.20 | hi so | | | contrates the end [1] 1724 | · |

Figure 3. Frame Format

Windows

| 30 | NO: | | HIA. | 5:10 | | 73jR | |
|----|-----|---|------|------|--|------|--|
| | | • | | | | つけてか | |

The Becor imple the II 8273 two v Betwe locke witho CPU with: flexib transi allow Interr field . **Lappir** outpu the i Interr The C and tr yia Ci data r gener bus. I eignal table :

| | continued by the entire of the control of the contr | | | | | |
|----|--|-----------|------|--|--|--|
| | CONTRACT CON | | | | | |
| | 203 00083 | | | Table 2 | | |
| | Symbol | Pir No | | | | |
| | -Vcc • | - 40 | 1 | Power Supply: +5V Supply | | |
| | GND : | 20 | : 00 | Ground: Ground. | | |
| | RESET O | :: :: | 1 ./ | iforce the 8272 to an Idle state. The | | |
| | 1958 (1) 4. 14. 15. 15. 15. 15. | 5 OE' | | is issued by the CPU. The modern interface output signals are forced high. Reset must be true for a | | |
| | ≅ | 24 | 1 1 | minimum of 10 TCY. Chip Select: The RD and WR inputs | | |
| | DB ₇ -DB ₀ | 19- | l vo | are enabled by the chip select input. Data Bus: The Data Bus lines are bi- | | |
| | uni rusa s | . 12 | | directional three-state lines which in- terface with the system Data Bus. | | |
| | WR | 10 | | Write Input: The Write signal is used | | |
| | gad neri | | | to control the transfer of either a command or data from CPU to the 8273. | | |
| • | RD entr | | . I' | Read Input: The Read signal is used to control the transfer of either a data byte or a status word from the 8273 | | |
| | TxINT. | . 2 | 0 | to the CPU. Transmitter Interrupt: The Transmitter interrupt signal indicates that. | | |
| - | -RxINT | - 11 | .0 | the transmitter logic requires service. Receiver Interrupt: The Receiver | | |
| - | | . ; | , | interrupt signal indicates that the Receiver logic requires service. | | |
| ľ | TxDRQ | 6 | 0 | Transmitter Data Request: Re- quests a transfer of data between memory and the 8273 for a transmit | | |
| l | RxRDQ | 8 | ٥ | Operation. Receiver DMA Request: Requests a transfer of data between the 8273 and | | |
| ŀ | TaDACK | 5 | 1 | memory for a receive operation | | |
| ١. | 6 2 1 1 2 2 7 7 | : | | The Transmitter DMA acknowledge signal notifies the 8273 that the | | |
| ŀ | RXDACK | .7. | | TxDMA cycle has been granted. Receiver DMA Acknowledge: The | | |
| | 3+36 + 1 St | | | Receiver DMA acknowledge signal notifies the 8273 that the RxDMA cycle has been granted. | | |
| Γ | A1-A0 - 5 = | 22- 21 | 1 | Address: These two lines are CPU Interface Register Select lines. | | |
| - | TxD | 29 | 0 | Transmitter Data: This line transmits the serial data to the communi- | | |
| F | TxC | 28 | ī | Transmitter Clock: The transmitter | | |
| L | | | | clock is used to synchronize the transmit data | | |
| | RxD | 26 | | Receiver Data: This line receives sensi data from the communication channel. | | |
| | RxC | 27 | - | Receiver Clock: The Receiver Clock is used to synchronize the receive data. | | |
| - | | | | | | |

| | | | - N- |
|---|----------------|-------------------------------|---|
| Symbol ' | Pin No. | Туре | Name and Function Land |
| 32X CLK = isnuite net eniigiaeliye emoteva | יי,עט יי,עט | abl. | Pasynchronous modem is used b |
| अंडी संड जो. जार कालाह शक्कार देव | 220 GMF | P. 16 of t | Hoop configuration the loop states can run without an accurate 1X dod by using the 32X CLX'in conjunctes with the DPLL output. (This pin stat be grounded when not used.) 341 |
| DPLL () | 23. C | O. Isa | Digital Phase Locked Loop: Digital Phase Locked Loop output can be tied to RxC and/or TxC when 1X dod is not available. DPLL is used with 32X CLK ¹⁵ |
| FLAG DET | | ر. ج | Flag Detect: Flag Detect signels by a flag (01111110) has been received by an active receiver. |
| ATS | 35 | .0 | Request to Send: Request to Set signals that the 8273 is ready to transmit data. |
| CTS | 30 | ا ،ک | Clear to Send: Clear to Send significant that the modern is ready to accept data from the 8273. |
| | 173 | (1) (36) (36) | Carrier Detect: Carrier-Detect spinals that the line transmission has started and the 8273 may begin to sample data on RxD line. |
| 2 10178197 | 34. | nutte an a near resn | General purpose input ports: Te jogic levels on these lines can be Read by the CPU through the Das Bus Buster. |
| er ricett s. So god | 39 | O | General purpose output ports: Te CPU can write these output line through Data Bus Buffer. |
| CLK | 3 - | 97 | Clock: A square wave TTL clock |

FUNCTIONAL DESCRIPTION General connections of the second control of

The Intel® 8273 HDLC/SDLC controller is a microcon puter peripheral device which supports the interestical Standards Organization (ISO) High Level Data Link Control (HDLC), and IBM Synchronous Data Link Control (SDLC) communications protocols. This controls minimizes CPU software by supporting a comprehense frame-level instruction set and by hardware implement tation of the low level tasks associated with free assembly/disassembly and data integrity. The 8273 cm la used in either synchronous or asynchronous application.

__ In asynchronous applications the data can be program med to be encoded/decoded in NRZI code. The docta derived from the NRZI:data using a digital phase local loop. The data transparency is achieved by using a zero bit insertion/deletion technique. The frames are automacally checked for errors during reception by verifying the Frame Check Sequence (FCS); the FCS is automatical generated and appended before the final flag in trans

:k is used to y when an

18.1

is used. M ate 1X clock conjunction nis pin must sed.)

on: Digital put can be en 1X clock s used with

signals that

est to Send ady to trans-

end signals y to accept

Detect sign nission has ay begin to

nes can be ah the Date

III AM ports: The utput lines

microcom nternational Data Link ink Control controller norehensk · impleme

8273 can b pplications The clock is nase locks sing a zero e automatik erifying th itomatical

with fram

>273 recognizes and can generate flags (01111110) and Ide, and GA (EOP) characters. > 273 can assume either a primary (control) or a:

madary (slave) role. It can therefore be readily beented in an SDLC loop configuration as typified by ■ Stop Retail Store System by programming the size a one-bit delay mode. In such a configuration, a mun pair can be effectively used for data transfer tem controllers and loop stations. The digital phase had bee output pin can be used by the loop station and the presence of an accurate Tx clock.

Interface by Optimized for the MCS-80/85" bus m #257 DMA controller. However, the interface is hith and allows either DMA or non-DMA data interrupt for non-interrupt driven. It further maximum line utilization by providing early met mechanism for buffered (only the information than be transferred to memory) Tx command overit also provides separate Rx and Tx interrupt thannels for efficient operation. The 8273 keeps In Interrupt request active until all the associated manust results have been read:

Putilizes the CPU interface to specify commands Mitweler data. It consists of seven registers addressed àಔA₁, A₀, RD and WR signals and two independent magisters for receive data and transmit data. A1, A0 are punity derived from two low order bits of the address at an 8080 based CPU is utilized, the RD and WR may be driven by the 8228 I/OR and I/OW. The the seven register select decoding:

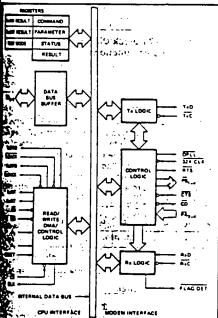


figure 4. 8273 Block Diagram Showing CPU Interface Functions

| A. | An | TADACK | RADACR | ČŠ | AB | 075 | Register |
|-----|-----|--------|---------|-----|--------|------|--|
| | 70 | 120ACK | THEOREM | | | | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| 0 | 0 | 1 | 1 | 0 | 3 | . 0 | Command : |
| 0 | 0 | 1 | 1 | 0 | 0 | 1 1 | Status |
| 0 | 1 | 1 | 1 | . 0 | 1 | 0 | Parameter 0J |
| 0 | 1 | 1 | 1 1 | 0 | 0 | 1 | Basult |
| 1 | 0 | 1 | 1 1 | 0 | 1 | 0 | Reset HIN LER |
| 1 | 0. | ٠,٤, | . 1 م | .0. | .0. | . 1. | TXINT Result, |
| 1 . | 1 | , | 1 | 0 | " i '" | 0. | |
| 1 | 1 1 | 1 | . 1 | .0 | 0 | 1 1 | RXINT Result |
| × | X | 0 | . 1 | 11 | 1 | ۰ ا | Transmit Data |
| Х | X ' | 1 . | 0- | 1. | 0 | 4 | Receive Data |

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24 sour encountries in paterior, in, cate as if

 $(a_{n+1},\ldots,a_{n+1},a_{n+1},a_{n+1})$

1 S 1 S 19

Register Description | 1 August 12 (Simulation) Layong |

Command Court of a requestrative artigist such a sub-

Operations are initiated by writing an appropriate command in the Command Register, TRECIBE AMP Parameter in including and published area AMQ beide

Parameters of commands that require additional information are written to this register.

course state on the temperature state Contains an immediate result describing an outcome of an executed command. THE REPORT OF THE SECTION OF SECTION AND ADMINISTRATION OF SECTION AND ADMINISTRATION OF SECTION AND ADMINISTRATION AND ADMINIS

. .

Transmit Interrupt Result

and more than the Contains the outcome of 8273 transmit operation (good/bad completion). (1977) 1977 1977 1977 1977 1977 1977

Receive Interrupt Result

of the wild business of confidence of the confid or lates and its Contains the outcome of 8273 receive operation (good/ bad completion), followed by additional results which detail the reason for interrupt.

Control of the Caracida Santa R The status register reflects the state of the 8273 CPU

DMA Data Transfers

The 8273 CPU interface supports two independent data interfaces: receive data and transmit data. At high-data transmission speeds the data transfer rate of the 8273 is great enough to justify the use of direct memory access IDMA) for the data transfers. When the 8273 is configured in DMA mode, the elements of the DMA interfaces are:

.

TxDRQ: Transmit DMA Request

Requests a transfer of data between memory and the 8273 for a transmit operation. .. நடந்த கார்க்கால்

TxDACK: Transmit DMA Acknowledge

The TxDACK signal notifies the 8273 that a transmit DMA cycle has been granted. It is also used with WR to transfer data to the 8273 in non-DMA mode. Note: RD must not be asserted while TxDACK is active.

RxDRQ: Receive DMA Request, $|_{\Omega^{\infty}(\mathbb{R})}$ is much logic act.

Requests a transfer of data between the 8273 and memory for a receive operation.

RxDACK: Receive DMA Acknowledge

The RxDACK signal notifies the 8273 that a receive DMA cycle has been granted. It is also used with RD to read data from the 8273 in non-DMA mode. Note: WR must not be asserted while RxDACK is active.

RD, WR: Read, Write

The \overline{RD} and \overline{WR} signals are used to specify the direction of the data transfer.

DMA transfers require the use of a DMA controller such as the Intel 8257. The function of the DMA controller is to provide sequential addresses and timing for the transfer, at a starting address determined by the CPU. Counting of data block lengths is performed by the 8273.

To request a DMA transfer the 8273 raises the appropriate DMA REQUEST. DMA ACKNOWLEDGE and READ enables DMA data onto the bus (independently of CHIP SELECT). DMA ACKNOWLEDGE and WRITE transfers DMA data to the 8273 (independent of CHIP SELECT).

It is also possible to configure the 8273 in the non-DMA data transfer mode. In this mode the CPU module must pass data to the 8273 in response to non-DMA data requests indicated by the status word.

Modem Interface

The 8273 Modem Interface provides both dedicated and user defined modem control functions. All the control signals are active low so that EIA RS-232C Inverting drivers (MC 1488) and inverting receivers (MC 1489) may be used to interface to standard modems. For asynchronous operation, this interface supports programmable NRZI data encode/decode, a digital phase locked loop for efficient clock extraction from NRZI data, and modem control ports with automatic CTS. CD monitoring and RTS generation. This interface also allows the 8273 to operate in PRE-FRAME SYNC mode in which the 8273 prefixes 16 transitions to a frame to synchronize idle lines before transmission of the first flag.

It should be noted that all the 8273 port operations deal with logical values, for instance, bit D0 of Port A will be a one when $\overline{\text{CTS}}$ (Pin 30) is a physical zero (logical one).

Port A - Input Port

During operation, the 8273 interrogates input pins CTS (Clear to Send) and CD (Carrier Detect). CTS is used to condition the start of a transmission. If during transmission CTS is lost the 8273 generates an interrupt. During reception, if CD is lost, the 8273 generates an interrupt.



The user defined input bits correspond to the 8273 PA, PA, and PA, pins. The 8273 does not interrogate or manipulate these bits.

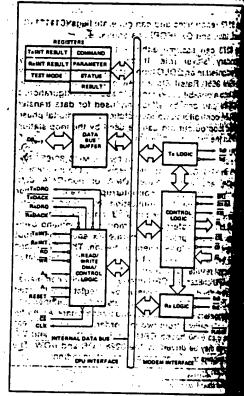
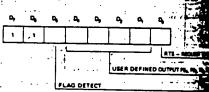


Figure 5. 8273 Block Diagram Showing Code
Logic Functions

Port B - Output Port

During normal operation, if the CPU sets RTS acide 8273 will not change this pin; however, if the CPU set Inactive, the 8273 will activate it before each transmission and deactivate it one byte time after transmission the receiver is active the flag detect pin is pulsed exist a flag sequence is detected in the receive data set. Following an 8273 reset, all pins of Port B are set better inactive level.



The user defined output bits correspond to the PB4-PB1 pins. The 8273 does not interrogate and late these bits.

ata Logic

al data is synchronized by the user transmit $\overline{\text{TxC}}$) eive (RxC) clocks. The leading edge of $\overline{\text{TxC}}$ is new transmit data and the trailing edge of $\overline{\text{RxC}}$ to capture receive data. The NRZI encoding/ g of the receive and transmit data is program-

prostic features included in the Serial Data logic prammable loop back of data and selectable clock serier. In the loop-back mode, the data presented xD pin is internally routed to the receive data input circultry in place of the RxD pin, thus allowing a CPU to send a message to itself to verify operation of the 8273.

In the selectable clock diagnostic feature, when the data is looped back, the receiver may be presented incorrect sample timing by the external circuitry. The user may select to substitute the TxC pin for the RxC input on-chip so that the clock used to generate the loop back data is used to sample it. Since TxD is generated off the leading edge of TxC and RxD is sampled on the trailing edge, the selected clock allows bit synchronism.

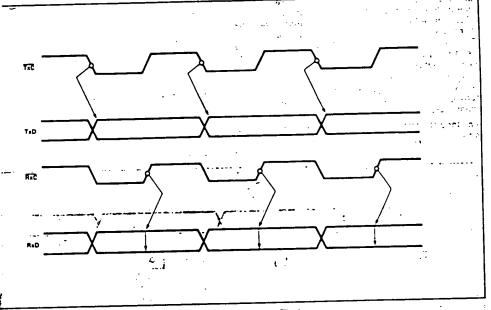


Figure 6. Transmit/Receive Timing

shronous Mode Interface

such the 8273 is fully compatible with the HDLC/
It communication line protocols, which are primarily
sped for synchronous communication, the 8273 can
be used in asynchronous applications by using this
tacs. The interface employs a digital phase locked of the protocol o

guarantees that within a frame, data transitions will occur at least every five bit times — the longest sequence of ones which may be transmitted without zero-bit insertion. The DPLL should be used only when NRZI coding is used since the NRZI coding will transmit zero sequence as line transitions. The digital phase locked loop also facilitates full-duplex and half-duplex asynchronous implementation with, or without modems.

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Digital Phase Locked Loop

in asynchronous applications, the clock is derived from the receiver data stream by the use of the digital phase locked loop (DPLL). The DPLL requires a clock input at 32 times the required baud rate. The receive data (RxD) is sampled with this 32X CLK and the 8273 DPLL supplies a sample pulse nominally centered on the RxD bit cells. The DPLL has a built-in "stiffness" which reduces sensitivity to line noise and bit distortion. This is accomplished by making phase error adjustments in discrete increments. Since the nominal pulse is made to occur at 32 counts of the 32X CLK, these counts are subtracted or added to the nominal, depending upon which quadrant of the four error quadrants the data edge occurs in. For example if an RxD edge is detected in quadrant A1, it is apparent that the DPLL sample "A" was placed too close to the trailing edge of the data cell; sample "B" will then be placed at T = (Tnominal - 2 counts) = 30 counts of the 32X CLK to move the sample pulse "B" toward the nominal center of the next bit cell. A data edge occuring in quadrant B1 would cause . a smaller adjustment of phase with T = 31 counts of the 32X CLK. Using this technique the DPLL pulse will converge to nominal bit center within 12 data bit times, worst case, with constant incoming RxD edges. . .

A method of attaining bit synchronism following a line idle is to use PRE-FRAME SYNC mode of transmission.

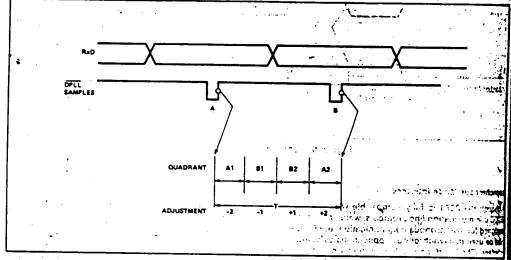
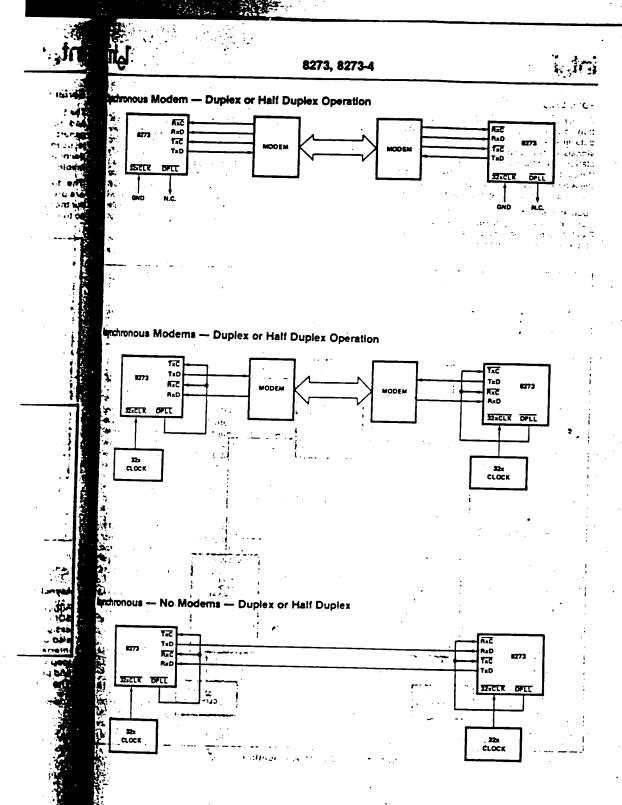


Figure 7. DPLL Sample Timing Consumption of SP45



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The 827: **sequence**

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Bit 7 CBS1

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Indicates in Command completion. is set; it res

SDLC Loop

bronous Mudem — Duples or Half Origins O viction The DPLC.simplifies the SDLC loop station implementation. In this application, each secondary station on a loop data link is a repeater set in one-bit delay mode. The signals sent out on the loop by the loop controller (primary station) are relayed from station to station then, back to the controller. Any secondary station finding its address in the A field captures the frame for action at that station. All received frames are relayed to the next station on the loop.

Loop stations are required to derive bit timing from the incoming NRZI data stream. The DPLL generates sample Rx clock timing for reception and uses the same clock to implement Tx clock timing.

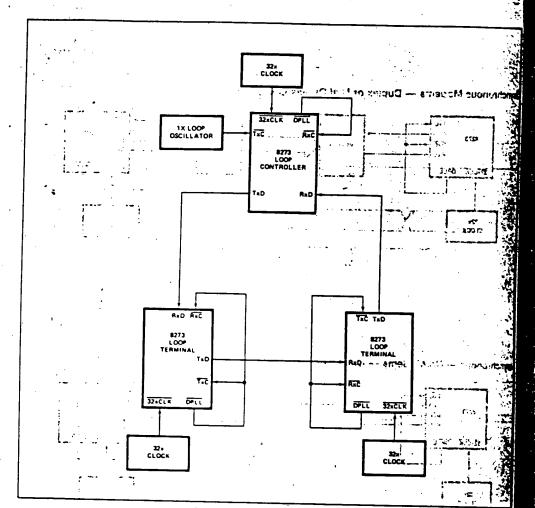


Figure 8. SDLC Loop Application

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The 273, is-an intelligent peripheral controller which relieves the CPU of many of the rote tasks associated with constructing and receiving frames. It is fully compatible with the MCS-80/85° system bus. As a peripheral device, it accepts commands from a CPU, executes these commands and provides an interrupt and Result back to the CPU at the end of the execution. The communication with the CPU is done by activation of CS, RD, WR pins, while the A1, A9 select the appropriate registers on the chip as described in the Hardware Description Section.

PRINCIPLES OF OPERATION Shows 2016

The 8273 operation is composed of the following sequence of events:

Forces the result prises, the 8273 notifies the CPU of the

COMMAND PHASE EZZ COMMAND AND PARAMETER REGISTERS

COMMAND PHASE

EXECUTION PHASE IN THE 2273 IS ON ITS OWN TO CAPRY OUT THE COMMAND.

RESULT PHASE OPERATION OF ONE ON MORE OF THAT THE EXECUTION ARE AN INTERPRETATION OF ONE OR MORE OF THE REGISTERS.

JULY CALLED THAT THE EXECUTION OF ONE OR MORE OF THE REGISTERS.

JULY CALLED THE EXECUTION OF ONE OR MORE OF THE REGISTERS.

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The Command Phase

During the command phase, the software writes a command to the command register. The command bytes provide a general description of the type of operation requested. Many commands require more detailed information about the command. In such a case up to four parameters are written into the parameter register. The lowchart of the command phase indicates that a command may flot be assued if the Status Register indicates that the device is busy. Similarly if a parameter is issued when the Parameter Buffer shows full, incorrect operation will occur.

The 8273 is a duplex device and both transmitter and receiver may each be executing a command or passing results at any given time. For this reason separate interrupt pins are provided. However, the command register must be used for one command sequence at a time.

Status Register

The status register contains the status of the 8273 activity. The description is as follows.

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Bit 7 CBSY (Command Busy)

indicates in-progress command, set for CPU polt when Command Register is full, reset upon command phase completion. It is improper to write a command when CBSY is set; it results in incorrect operation.

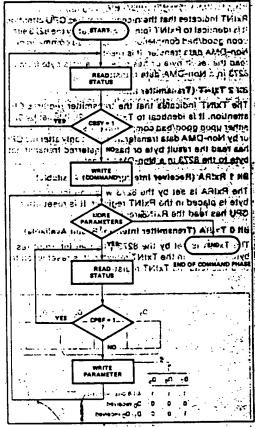


Figure 9., Command Phase Flowchart

Bit 6 CBF (Command Buffer Full)

indicates that the command register is full, it is reset when the 8273 accepts the command byte but does not imply that execution has begun.

Bit 5 CPBF (Command Parameter Buffer Full) ...

CPBF is set when the parameter buffer is full, and is reset by the 8273 when it accepts the parameter. The CPU may poll CPBF to determine when additional parameters may be written.

Bit 4 CRBF (Command Result Buffer Full)

indicates that an executed command immediate result in present in the Result Register. It is set by 8273 and reset when CPU reads the result.

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Figure 11. Tx Intermyt Result byte Format

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Bit 3 RxINT (Receiver Interrupt)

RXINT Indicates that the receiver requires CPU attention. It is identical to RxINT (pin 1.1) and is set by the 8273 either upon good/bad completion of a specified command or by Non-DMA data transfer. It is reset only after the CPU has read the result byte or has received a data byte from the 8273 in a Non-DMA data transfer: ##1506#####

Bit 2 TxINT (Transmitter Interrupt)

The TXINT indicates that the transmitter requires CPU attention. It is identical to TxINT (pin 2). It is set by 8273 either upon good/bad completion of a specified command or by Non-DMA data transfer. It is reset only after the CPU has read the result byte or has transferred transmit data byte to the 8273 in a Non-DMA transfer.,

Bit 1 RxIRA (Receiver Interrupt Result Available)

The RxIRA is set by the 8273 when an interrupt result byte is placed in the RxINT register. It is reset after the CPU has read the RxINT register.

Bit 0 TxIRA (Transmitter interrupt Result Available)

The TxIRA is set by the 8273 when an interrupt result byte is placed in the TxINT register, it is reset when the CPU has read the TxINT register of

Tree Contract FRINCIPLES OF OPER sead Prolinoexa ent

Upon accepting the last parameter, the 8273 enters into the Execution Phase. The execution phase may consist of a DMA or other activity, and may or may not require CPU Intervention. The CPU Intervention is eliminated in this phase if the system utilizes DMA for the data transfers, otherwise, to non-DMA data transfers, the CPU is a interrupted by the 8273 via TxiNT and RXINT pins To a each data byte request transfers to specify LVD and the control of the cont

The Result Phase composer at nother equition 1975 sequence of events:

During the result phase, the 8273 notifies the CPU of the execution outcome of a command. This phase is initiated by: 1992 2027 to 421 400 and converge 2027 to 2027 to 421 400 and converge 2027 (2027 and converge 2027).

- 1. The successful completion of an operation
- 2. An error detected during an operation news your programmy

To facilitate quick network software decisions, two types of execution results are provided in the second of the sec

- 1. An Immediate Result
- 2. A Non-Immediate Result 12.

The Command Phase

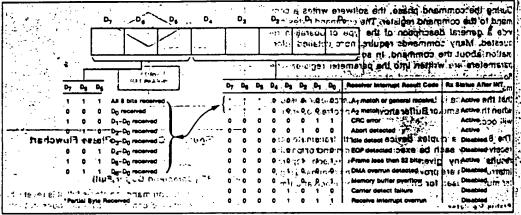


Figure 10. Rx Interrupt Result Byte Format and aniatoco relation states out? The december is as follows:

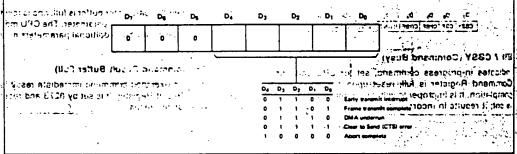


Figure 11. Tx interrupt Result Byte Format

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Immediate result is provided by the 8273 for commands such as Read Port A and Read Port B which have information (CTS, CD, RTS, etc.) that the network software needs to make quick operational decisions.

Acommand which cannot provide an immediate result will generate an interrupt to signal the beginning of the Result phase. The immediate results are provided in the Result Register, all non-immediate results are available upon device interrupt, through Tx Interrupt Result Register TxI/R or Rx Interrupt Result Register RxI/R. The result may consist of a one-byte interrupt code indicating the

condition for the interrupt and, if required, one or more bytes which detail the condition.

Tx and Rx Interrupt Result Registers See 2 a mail mess

The Result Registers have a result code, the three high order bits D7-D5 of which are set to zero for all but the receive command. This command result contains a count that indicates the number of bits received in the last byte. If a partial byte is received, the high order bits of the last data byte are indeterminate.

All results indicated in the command summary must be read during the result phase.

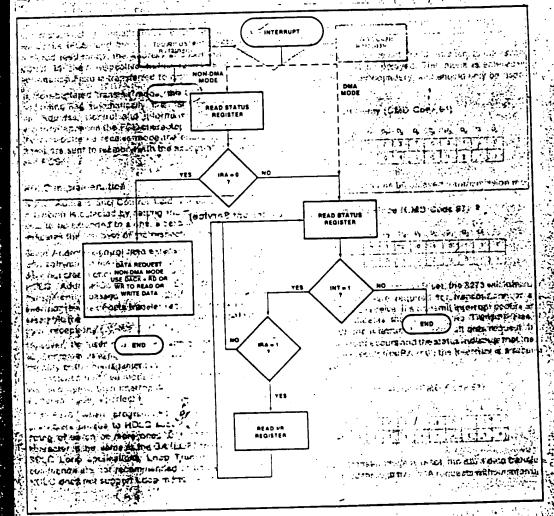


Figure 12. Result Phase Flowchart—Interrupt Results

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DETAILED COMMAND DESCRIPTION

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General ... manage the The 8273 HDLC/SDLC controller supports a comprehensive set of high level commands which allows the 8273 to be readily used in full-duplex, half-duplex, synchronous, synchronous and SDLC loop configuration, with or without modems. These frame-level commands minimize CPU and software overhead. The 8273 has address and control byte buffers which allow the receive and transmit commands to be used in buffered or non-buffered modes.

In buffered transmit mode, the 8273 transmits a flag sutomatically, reads the Address and Control buffer ngisters and transmits the fields, then via DMA, it fetches the information field. The 8273, having transmitted the information field, automatically appends the Frame Check Sequence (FCS) and the end flag. Correspondingly, in buffered read mode, the Address and Control fields are stored-In their respective buffer registers and only. Information Field is transferred to memory.

n non-buffered transmit mode; the 8273 transmits the beginning fiag automatically, then fetches and transmits the Address. Control and Information fields from the memory, appends the FCS character and an end flag. In the non-buffered receive mode the entire contents of a frame are sent to memory with the exception of the flags ूर्य स्ट्र<u>ा</u>

HDLC implemenation

HDLC:Address and Control field are extendable. The extension is selected by setting the low order bit of the field to be extended to a one, a zero in the low order bit Indicates the last byte of the respective field $s^{1/3} \in \mathbb{R}^3$

Since Address/Control field extension is normally done with software to maximize extension flexibility, the 8273 foes not create or operate upon contents of the extended HDLG "Address/Control" fields. Extended "fields are transparently passed by the 8273 to user as either literrupt results of data transfer requests. Software must assemble the fields for framenission and Interrogate them upon reception.

However, the user can take advantage of the powerful 8273 commands to minimize CPU/Software overhead and simplify buffer management, in handling extended fields. for instance buffered mode can be used to separate the first two bytes, then interrogate the others from buffer, Buffered mode is perfect for a two byte address field.

The 8273 when programmed recognizes protocol theracters unique to HDLC such as Abort, which is a titing of seven of more ones (01111111). Since Abort theracteris, this same as the GA (EOP) character used in SDLC Loop applications, Loop Transmit and Receive commands are not recommended to be used in HDLC. HDLC does not support Loop mode. 311 IM/2014 []

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Initialization Set/Reset Commands

These commands are used to manipulate data within the 8273 registers. The Set commands have a single parameter which is a mask that corresponds to the bits to be set. (They perform a logical-OR of the specified register with the mask provided as a parameter). The Register commands have a single parameter which is a mask that has a zero in the bit positions that are to be reset. (They perform a logical-AND of the specified register with the

Set One-Bit Delay (CMD Code A4)

| | | | | | | | | | | | • |
|------|---|---|-----|----|---|----|---|---|---|-----|---------|
| CMD: | • | • | - 1 | 0 | 1 | • | 0 | 1 | ٥ | 0. |]. |
| PAR: | ۰ | • | - | .0 | 0 | 16 | 0 | • | 0 | ٠ ٥ | i trans |

When one bit delay is set, 8273 retransmits the received data stream one bit delayed. This mode is entered at a receiver character boundary, and should only be used by

And mode switcher set in CMD code & san o- --Reset One-Bit Delay (CMD Code 64) d Drisming. elif: enginecq

| -1 | <u> </u> | <u> </u> | ۰ | ۹, | . -% | , D , | D3 . | , _C | Α. | ٩ | | ۲. |
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| CMD: | • | 0 | • | 1 | 1 | • | 0 | 1 | 04 | ٠,٥ | H (80 | 'n |
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hitororesed as en abort character, Digerwise, and to com The 8273 stops the one bit delayed retignamission mode

Set Data Transfer Mode (CMD:Code 97) Aug. 903 (A0)

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| PAR | • | 1, | .0 | 0 | .6, | 9. | . 6, | ٠ | 0 | 49. | | 10 |

When the data transfer mode is set, the 8273 will interrupt when data bytes are required for transmission or an available from a receive. If a transmit interrupt occurs and the status indicates that there its notiTransmit Result (TxIRA = 0); the interrupt is:a transmit data request; If à receive interrupt occurs and the status indicates that there is no receive result (RxIRA = 0), the interrupt is a receive data requestic programos innensy sestions with gonogen. Jing is sent, the final flag intercent without the wint of

Reset Data Transfer Mode (CMD Code 57) Twen Stine

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|--------------------------------|---|-----|------|-----|-----|------|------|-------|-----|----|-------|---|
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| MAN SPARE | 0 | 1. | 1. | .3. | .1. | :0 | 1.1. | 1 | . 3 | 0. | | 3 |

If the Data Transfer Mode is reset, the 8273 data transfers are performed through the DMA requests without interrupting the CPU. non-supervisory (terramities indicating mar stores and store are the

Early transmitter lufter und ban und beide er beide er by waiting, has a transmit conversed informat material and important a pringer of the different linear Tyline command for a supervisory frame. See Figure 14

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active receiver. This mode is useful for the implementation

of an SDLC loop controller in detecting the end of a

(D3) Transmitter Early Interrupt Mode (Tx)

The early interrupt mode is specified to indicate when the

8273 should generate an end of frame interrupt. When set, an learly interrupt is generated when the last data

character has been passed to the 8273. If the user software

responds with another transmit command before the final flag is sent, the final flag interrupt will not be generated

and a new frame will immediately begin when the current

frame is complete. This permits frames to be separated by

a single flag. If no additional Tx commands are provided, a

Note: In buffered mode, if a supervisory frame (no infor-

mation) Transmit command is sent in response to an early

Transmit Interrupt, the 8273 will repeatedly transmit the

same supervisory frame with one flag in between, until a

Early transmitter interrupt can be used in buffered mode by waiting for a transmit complete interrupt instead of

early Transmit Interrupt before issuing a transmit frame

command for a supervisory frame. See Figure 14.

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message stream after a loop polf, ----

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| in EOP interrupt mode, an interrupt is concreted | wol en Figure 14, betrete in the service of the control of the con |
| whenever an EOP character (01111111) is detected by an active receiver. This mode is useful for | If this bit is zero, the interrupt will be generated only |

To be extended to a one, a zero in The low If this bit is zero, the interrupt will be generated only the final flag has been transmitted.

(D2) Buffered Mode Clarators eximizant of grayfol mod creste or cherete upon con If the buffered mode bit is set to a one, the first two by (normally the address (A) and control (C) fields) of state are buffered by the 8273. If this bit is a zero, the addressed control fields are passed to and from memory state

(D1) Preframe Sync Mode sake can take eboM ony& emarter (ID) If this bit is set to a one the 8273 will transmit two days ters before the first flag of a frame recomm remove To guarantee sixteen line transitions, the 8273 sands in bytes of data (00), if NRZI is set or data (55), if NRZI as

when programmen recognition (D0) Flag Stream Mode ? DJUH of auctinu metal if this bit is set to a one, the following table outlines operation of the transmitter Landitablique 1001

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| AND CONTRACT CONTRACTS OF STATES | • |
|--|--|
| This bit is reset to zero the following table outlines the | The reset command emulates the action of the reset pin |
| pration of the transmitter. | 6 1. The modem control signals are forced high (inactive level). |
| We gregant to both the both own | level). In the second s |
| TRANSMITTER STATE | 3. Any commands in progress are terminated immed |
| DLE Send Idles on next cherecter | ately. The program of the speciment of t |
| Insent or Transmit. Send idles after the transmission | The 8273 enters an idle state until the next command it |
| Transmit or Transmit: Send idles after the transmission is complete | issued. 5. The Serial I/O and Operating Mode registers are se |
| Loop Transmit Active Ignore command. | to zero and DMA data register transfer mode it |
| Loop Transmit Active Ignore command. | selected. |
| अवद्याकाणकारका संदर्भाता एका उत्कारिकार्या काम्याह हुन्यों कार्य है। | The device assumes a non-loop SDLC terminal role. |
| M Serial I/O Mode (CMD Code A0) 41 8 78/16 01/163 | |
| I the flag subsequence of the tag of the the | Receive Commands |
| peginative of o o o o o superior | The second of th |
| the third this series | The 8273 supports three receive commands: Gener Receive, Selective Receive, and Selective Loop Receive. |
| 3 Althe end of | Heceive, Selective Receive, and Selective Loop receive. |
| Jeen Ei noon mant an | General Receive (CMD Code CO) |
| May we the (CAR) Cone of 1 1 Tre -Arc | General receive is a receive mode in which frames a |
| Transamile of the solution of the state of the solution of the | received recentless of the contents of the address field." |
| | p |
| Inst Serial I/O Mode (CMD Code 60) | A1 A6 D7 D6 D6 D6 D2 D2 D1 D6 |
| his command allows bits set in CMD code A0 to be reset bypacing zeros in the appropriate positions. | PAR 0 1 LEAST SIGNIFICANT BYTE OF THE |
| L' | RECEIVE BUFFER LENGTH (80) |
| A1 A2 D7 D2 D2 D2 D2 D2 D3 | PAR 0 1 MOST BIGNIFICANT BYTE OF RECEIVE YV 908 |
| May 01 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | mminafi |
| PAR: 0 1 1 1 1 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 | NOTES: |
| (All Third Continues with this area. | 1. If buffered mode is specified, the R0, R1 receive frame leng |
| Abort Transmit Commands sass qoal間 | (result) is the number of data bytes received, " 2. If non-buffered mode is specified, the R0, R1 receive fram |
| this bit is set to a one, the transmit data is internally routed | length (result) is the number of data bytes received plus to |
| the receive data circuitry, en mod finda self innamendo. | the count includes the address and control bytes). |
| Mind → RxC | 3. The frame check sequence (FCS) is not transferred |
| fire bit is set to a one, the transmit clock is internally | n, memory. 4. Frames with less than 32 bits between flags are ignored in |
| and to the receive clock circuitry. It is normally used | 25.4 Interrupt generated) if the buffered mode is specified. |
| th the loop back bit (D2) | in the non-buffered mode an interrupt is generated wher less than 32 bit frame is received, since data transfer reque |
| Millian Order of Johnson St. Brown Favor - 1-1-1-1 | have occurred |
| Its bit is set to a one, NRZI encoding and decoding of | 6. The 8273 receiver is always disabled when an idle is received after a valid frame. The CPU module must issue a receiver. |
| this bit is set to a one, NRZI encoding and decoding of | command to re-enable the receiver. |
| ment and receive data is provided. If this bit is a zero, the ment and receive data is treated as a normal positive logic | The intervening ABORT character between a final flag and |
| Management of the control of the con | iDLE does not generate an interrupt |
| Transmit (CMD Code CF) Transmit (CMD Code CF) Transmit (CMD Code CF) Transmit (CMD Code CF) | lowed by an IDLE, an interrupt will be generated for the ABC |
| ty of the transmitted signal-and a one causes no polarity | followed by an IDLE interrupt one character time later. |
| tange. NRZI, is used in all asynchronous operations. | reception of an ABORT will disable the receiver. |
| ber to IBM document GA27-3093 for details. | angular one insurance and allowed and an annual an annual and an annual an annua |
| bill Device Command | ลูกรถาประวัติก โกลกะ(C1) eboO CMO) evided a vibrale Selective Process (ชาวา the fine from |
| Manager and the second | A1 A0 D7 D0 D0 D0 D1 D1 D0 |
| 23.00 | 0 0 1 1 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 |
| | RECEIVE BUFFER LENGTH (80) |
| 7 Table 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | PAR: 0 1 MOST SIGNIFICANT BYTE OF RECEIVE BUFFER LENGTH (81) |
| Legistresat command is executed by outputing a (01)H | U. THO IN. D I RECEIVE FRAME ADDRESS MATCH |
| Moved by (00) _H to the reset register (TMR). See 8273 | FIELD ONE (ATTACA) TO THE TANK A LOCA D |
| timing characteristics for Resetapulse specifica- | YAN: |
| Best Att l'applicate about timbine file. Att 10 1.04 f | |

8-35

Selective receive is a receive mode in which frames are ignored unless the address field matches any one of two When selective receive is used in HDLC the 8273 looks at the first character, if extended, software must then decide if the message is for this unit. e basingrou wan oil intro airte a . . . group (53 sa ref) .. 9027 Selective Loop Receive (CMD Code C2) 3.142 36T 81 850m 1078 181 1078 108 06 06 06 07 101 07 101 06 04 O. 0 1 1 0 0 0 0 1 0 LEAST SIGNIFICANT BYTE OF THE ... RECEIVE SUFFER LENGTH (80) MOST SIGNIFICANT SYTE OF RECEIVE BUFFER LENGTH (81) TO COLUMN VIESOR RECEIVE FRAME ADDRESS MATCH FIELD ONE (A1) PAR RECEIVE FRAME ADDRESS MATCH FRELD TWO (A2Y Franch To March לר: בפחפים Seneral Penalya (CMD Chare Color Selective loop receive operates like selective receive except that the transmitter is placed in flag stream mode automatically after detecting an EOP (01111111) following a valid received frame. The one bit delay mode is also reset at the end of a selective loop receive. The control of the state of the Receive Disable (CMD Code C5) Terminates an active receive command immediately.

| • | A 1 | | D ₇ | Ď. | D ₆ | 04 | ٥, | 0, | 01 | D ₀ | 5 | 2724 |
|--------------|--------------|----|----------------|------|----------------|------|-----|------|-----|----------------|-------|---------------|
| ight. g. cmo | <u> </u> | 0 | 7.7 | 1 | 0 | .0 | 0 | 1 | 0 | 1 | Ţ., | iii i ≉gn≀ |
| 572 PM | NO | ME | | | . 1 - 1 | 20.4 | , n | r, 7 | 1.0 | wi. | 7-6-5 | 1,34.5 |
| N ENT-DAN | | | | | | | | | | | | |
| 14. / | ~ _ <u>`</u> | | | de l | | | | • • | | | • | |

The 8273 supports three transmit commands: Transmit Frame, Loop Transmit Transmit Transparent. Statistics of the state of the

mit Frame (CMD Code C8)

| A1 A2 D7 D8 D8 D8 D2 D2 D1 D8 0 0 1 1 0 0 1 0 0 0 0 1 LEAST SIGNIFICANT BYTE OF A 1 MOST SIGNIFICANT BYTE OF | | | `D- | D. | De . | ٥, | ō, | D, | D, | D ₀ | • |
|--|--------|-----|-----|------|------|-----|------|------|-------|----------------|-----|
| FRAME LENGTH (LD) | - | 0 | 1 | ΤŤ | 0 | 0 | 1 | 0 | 0 | 0 | |
| | 5 | . 1 | FF | AME | LEN | GTH | LOI | | | | • |
| | • • | 15 | A | DORE | 85 F | ELD | OF T | RANI | DAIT | FRA | ME |
| 1 ADDRESS FIELD OF TRANSMIT FRAME | - | 1, | Ťα | ONTR | OL F | ELD | OF T | RAN | DA IT | FRA | ME_ |

Transmits one frame including: Initial flag, frame check sequence, and the final flag.

If the buffered mode is specified, the L0, L1, frame length provided as a parameter is the length of the information field and the address and control fields must be input.

In unbuffered mode the frame length provided must be the length of the information field plus two and the address $a_{
m c}$ and control fields must be the first two bytes of data. Thus only the frame length bytes are required as parameters.

Loop Transmit (CMD Code CA) 785 28 762 21 4

| | Α, | ~ | 07 04 04 |
|-----------|------|-----|--|
| ~ CMD | | • | |
| i.e. PA | . Pc | t | LEAST SIGNIFICANT BYTE OF PRAME LENGTH ILDI |
| TURCAN | - 1 | nic | FRAME LENGTH (L1) |
| PAI | . • | 17 | ADDRESS FIELD OF TRANSMIT FRAME W |
| CONSTRUCT | . 7 | 177 | CONTROL FIELD OF TRANSMIT FRAME IC |
| | - | | - No. 100 100 100 100 100 100 100 100 100 10 |

Transmits one frame in the same manner as the trame command except

- 1. If the flag stream mode is not active transmissional begin after a received EDP has been converted by flag.
- 2. If the flag stream mode is active transmission begin at the next flag boundary for buffered moderal the third flag boundary for non-buffered mode. 3. At the end of a loop transmit the one-bit delay model

entered and the flag stream mode is reset. Small Salvania

Transmit Transparent (CMD Coded C9)

| | Aı | | O ₇ | De. | Da | 04 | | <u>~</u> | ~ | _ | ٠ŧ |
|----------------|-----|-----|----------------|------|------|-------|-------|----------|-----|------|-----|
| cuo: | .a. | 0 | 1 | 1 | 0 | • | 1 | _ و | ٠, | ٠. | a i |
| 1 | - | - | LE/ | ST 1 | UGNI | FICA | MT B | YTE | × : | ٠. ح | 3 |
| 19891 90 OPAR: | • | 1 | FR | AME | LEN | 3TH (| (0) | - ** | | 24 | he |
| 19291 90 O | - | | 180 | 47.8 | GNI | ICAI | IT BY | TS 0 | for | es b | lı. |
| MRI MRI | 70 | 133 | FR | AME | LEN | STH | L1) | | | | I. |
| | | | | | | _ | | | | ٠ | v |

The 8273 willi transmit a block of raw data protocol, i.e., no zero bit Insertion, flags, or frame del sequences...

Abort Transmit Commands

The second second

An abort command is supported for each type of the command. The abort commands are ignored if a tra C. command is not in progress.

Victorial and to All France Prince Abort Transmit Frame (CMD Code CC) 145 "phen Allende La real of the bar of the

regularit Metromor 0 0 1 1 0 0 1 71 0 0 PAR NONE

After an abort character (eight contiguous ones) is the i mitted, the transmitter reverts to sending flags or id function of the flag stream mode specified.

Abort Loop Transmit (CMD Code CE). Fig. 1. Abort Loop Transmit (CMD Code CE). Fig. 1. Abort 1 258129CM2 0 0, 1 1 0 0 1 1 1 1 1 PARETHONA, DESS TOAS Inemicobateld

After a flag is transmitted the transmitter, re delay mode. arensmeter . a. 10 . a. 11 . a. . a. . a. . a.

Abort Transmit Transparent (CMD Code CD)

0 0 A1 'As 'D7 D6 O8 D4 D2 D7 D1 D6 ((0)) C CMD: 0 0 1 1 0 0 1 1 0 1

Sec 1017 The transmitter reverts to sending flags or ides as tion of the flag stream mode specified.

Moden The mod modem When re result o The Bit : mask th Port B c position: Read P

Read Po

8273 C

Se Re Tre

Tre Ab Ab Rei Rei Set Re

Lo

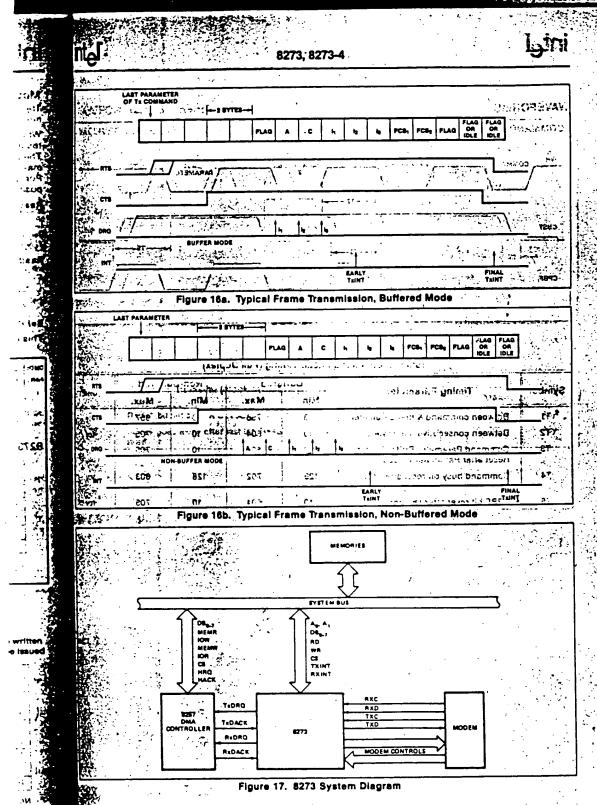
| 344 | ĺlβ · | | 8273, 827 | 3-4 | | 134 | |
|--|--|----------------|------------------------|--|---|-------------------------|--------------|
| 153 | | | | | | • | |
| 27 | Mem Control Commands | | (| Ds) Flag Detect | एक है। पुरस्कार | 73 Command Sur | (32) |
| 0.00 | In modern control commands are u | | | This bit can be used t | | | er, it |
| today. | with control ports | | • | vill be reset when th | - | | |
| | Ten read Port A or Port B comma | | | D4-D1) User Define | Outputs 11 | ञ्चाः प्रभागः ह्वापति । | 181 |
| 14 86 | est of the command is returned | | register. | hese bits correspon | | e of the PB4-PB1 ou | tput |
| 7 | h Bi Set Port B command requires at that corresponds to the bits to | | liialiis a | | | - Mest sphilic | 63 |
| IE (A) | in Bommand requires a mask the | | n the bit (| Do) Request to Sen | _ರ ಬಾಲಸಿಕಿದ ಕ | าแนะ อดีฮมล์คี 🛶 🦢 | 15. |
| 18 (0) | pulsons that are to be reset. | | | This is a dedicated | > · · · · · · | aren oversast | and |
| | Ted Port A (CMD Code 22) | | | reflects the same log | | | - ,,- |
| e transmit | A1 A4 D7 D4 D5 D4 D2 | D2 D1 D8 | | Reset Port B Bits (Ci | • | | . 5 |
| ingle of the second | 2 csc 0 0 0 1 0 0 | 0 1 0 | • | This command allow | | | eset. |
| rission was | PAR: NONE | Bull Til | - | • | re desta compani | 化硫磺酸二磺基甲基 | |
| 14.4 | Med Port B (CMD Code 23) | 3 | ٠. | A, Ag Dy Dg D | 0. 0,0 | robii barisha i — Pi | OR. |
| ission will | | 02 04 0 | * 0 | MD 0 0 0 1 1 | 0 0 0 | 111 300 | , |
| mode of (%) node. NAM | 10. | 0 0 1 | ם. ב | AR 0 1 1 1 | 4-1-4: | | .:8 |
| ay mode is | | place I graine | - 1,500 mag | | | RTS - REQUEST TO | |
| 4.3 | | | • • | • • • • | יינובר 1960ה. שני לעוד ליינים שני לעוד ליינים | A DEFINED | -111 |
| 19 | MPort B Bits (CMD Code A3) | | | | FLAG DETECT | | |
| 2 | mommand allows user defined | Port B pins to | be set. | | | | |
| - 43 | - A A D D D D D D D D D | _ <u></u> | ··· | in a second | | | |
| 3 10 E | | | | This command allow be reset. These bits o | | | |
| - 10.7 | 1 0 0 | ļ | | PB ₁) | | . 1 | 1. |
| Jaka | 1 | ATS - REQUES | T TO SEND | | · . | | |
| to without | USER DI | FINED | | 4: | di en | COMMENSO | |
| ame check | G PLAG DETECT . | | | • • • • | ř; | | |
| - 42 | | 4. L | - 1 | | 3 () | 3344 | 1 |
| 1 | 273 Command Summary | ا جرم ا دو | | N | 67.3 | RC N. 41G | - 1 |
| | | - Command | Parameter | Results | * 'Result' - | Completion | 1 |
| of transmit | Command Description | (HEX) | | | Port | Interrupt | ub (|
| f a transmit | Set One Bit Delay | , A4 J | Set Mask | None | | No do. | 4. 1 |
| ONT MO | Reset One Bit Delay | 64 - | Reset Mask | None | - | No | ┦~! |
| aid i | Set Data Transfer Mode | -Mi 97 | Set Mask | None | | , No _, | - |
| 1000 | Reset Data Transfer Mode | 57 | Reset Mask | None | | No | - 1 |
| o like di | Set Operating Mode | | Set Mask | i None | | No | վ ⊹∤ |
| | Reset Operating Mode | 51 | Reset Mask | None | | No . | վ ! |
| es) is trans | Set Serial I/O Mode | A0 | Set Mask | None | | No · | 4.1 |
| or idies as a | Reset Serial I/O Mode | 60 | Reset Mask | None | - | No | ٦. |
| Lingers | General Receive | CO | B0.B1 | RIC,R0.R1,(A,C)(2) | | Yes | 4 |
| (1) (1) | Selective Receive | · C1 | B0.B1.A1 A2 | RIC,R0,R1,(A,C)(2) | | Yes | 4 |
| :23 | Selective Loop Receive | C2 . | B0,B1,A1 A2 | RIC.R0.R1,(A,C)(2) | RXI/R | | ON |
| in the | 4 Receive Disable mirror trug era | | | 1 None · ··· | | restant at No has fast | ممراس |
| - J- 374 | Transmit Frame | Co | LO.L1,(A.C)" | TIC | TXI/R | Yes jatynes | 3 : te |
| 01 | Loop Transmit 1 1 1 1 1 1 1 1 1 | CA | LO.L1.(A.C)" | TIC | TXI/R | Yes | ٠.٠ |
| I DO ON | Transmit Transparent 😴 🎉 😿 | | LO.L1 | TIC | TXI/R | Yes | - |
| - 3 | Abort Transmit Frame (1971) | CC | None | TIC | TXI/R | Yes | 4 |
|)) | Abort Loop Transmit 😁 💮 | - CE | None | TIC | TXI/R | Yes | 4 |
| 0, | Abort Transmit Transparent | CD. | None | TIC | TXI/R | Yes | 4 |
| <u> </u> | Read Port A | J 22 | None | Port Value | Result | , No | 4 |
| 1.700 | Read Port B | 23 | None | Port Value | Result | No | 4 |
| 15 as a fund | Set Port B Bit | . A3 | Set Mask | None | | No | ┨ |
| | | 1 | 1 0 | 1 11000 | 1 | l No | 1 |

t6-37

This based only when in buffered mode.
2 Read as results only in buffered mode.

210479-002

| | | | | | | | | • • • • | | | ٠,٠٠٠ | | |
|-------------------------|--|------------------|-----------|----------------------|--|--|--|---|--|--|--|--|--|
| 82/3 C | commend | Sumn | nary K | ey . | | ર ૧ (દઉ | | | 15. | | SE LIBERTO | | |
| BOWN | -Least's | ionificar | it byte o | of the re | ceive b | uffer 11 | en | במוניה ז | dramable. | له تباهم | Joseph | arros G | |
| Apply De | ^ length. | nimit co | A 1 | ٠ , | 100 mm | . A. 1:44 | r | | | | | | |
| B1 | — Most si | anifican | t byte o | f the rec | eive bu | ffer | أنث | , hand | NO NE | | | | |
| | ere length. | | | | | Title DQ | 3,1 | tobas 1 | ham of | T M. N. | 124.200 | 1 | Agent and |
| 10.00 | Least s | ionifica | it bute | of the T | v frame | length | | and a | a deal of | 7 14 05 | F. C.Y. | Library 4- | 38 |
| 11 | - Most si | anifican | t hyte | of the To | r frame | length' | | א. עמעית ה- מ- מ- | der is | 4 14. | 18.5 | | 5 |
| ■ 150 p | — Receive | ymmoan Marama | addrae | onatch | field on | mangur. | | | | | | | |
| | — Receive | | | | | | | 901 (0 | 1 | | | | |
| | — Addres: | | | | | | | | | Filas | Spent Control | | |
| - 15 A 2 2 4 1 | | | | result is | | | | | | . X. | ر عگار بو | 600 | |
| | | • | | | • | | ; (R) | ្សេចមា | A STEEL A | | 10.30 | | |
| C | — Control | | | | | | , 76 | Libe or | - | C 6 | 6 1 1 | | |
| BYI/D | — Receive | | | result is | | VICEU. | - 4- | | | • | | | (.1. |
| | — Transm | | | | | | Ş., | - श्राष्ट्रीत | n Aller I | منتكر | #d 25 | JA HOL | Sa.c. |
| | — Least s | | | - | | na frame | | 153 | | | 23) | ND Cod | 3) (1) |
| | · receive | | | | | | | : 10°03 | C. Fac | Tree (| ا برند/۱۱ | c - 2 | |
| | - Most Bi | | | | | | | | | | | | |
| | 1. receive | | , | | gar or a | | | | | | | • . h 40+36 | 3. |
| | - Receive | | Int resi | ult code | · · · · · · | • | | | | | | 10 050 | 1 |
| | - Transm | | | | | ٠, | | | | | | -16.0 |) رت |
| ٠, د د | _ 116113111 | | • | | ~0. | ي درع هدر من | | | | | | O CHO | |
| | | | | 1. | | • • • | . 16 | 4.60 | PANTS | His GAL S. | 15 | Soft y | A |
| | | | | | | | • • • | 7. 🔻 | | 100 | S . x . | * * * | -24 |
| الد دادة ا | יפפר שוייות: | u. √ ⊡ | ء , و د | | " Ethic | nia eur | | | Car | | र का जात | | - |
| | ייט אייט פוני | | | | | | | | m+1 4 | 1 | 213 | | 1 |
| | | | | | | 1189 | | | | 2,167 | | | 23 m |
| 1 | • • . | | | | | | | % OT 123 | 4 | 1 | | 54 A. S. | |
| | COMMAND | er (e | | GENERAL | | 1 | | | | - | | 77.2 | |
| 100 | | | • | RECEIVE (Re. Rt) | | | ** | 1172 | 495 | (CARDIT | 3 730 | 12) 12 13 | |
| 1.017 | رجها ويا دجها | · • | | ing. njj | | · · · · · · | • | | H. | 120 | 4.354.764 | | 430 |
| | | ID LE | IDLE | | | • | | . 40 | **** | 6.2% | 8140 | FLAG | |
| | | | | | | | | | | | | | |
| | DATA IN | OR | OR | FLAG | A | , с | 1 4 1 | FCE. | PCS. | FLAG | FLAG | OR PH | · 1 |
| ļ | | DR FLAG | FLAG | FLAG | | , с | 4 | FCE | FCE, | FLAG | ABORT | OR P | 28 |
| | DATA IN | | | FLAG | A | | | | | | ABORT | OR) | |
| 1 | | | | FLAG | | | rameros · | | SEX SHIP | ~ · · | ABORT | IDLE | |
| DMA RE | nountains OUESTS | | | FLAG | | | | | | ~ · · | ABORT | IDLE | |
| DMA RE | netentaris: | | | FLAG | - 4 | | None (Cont.) | 30.4 | C DA | rik: | ABORT | IDLE | |
| DMA RE | DUESTS COUESTS | | | | A | <u></u> | None (Cont.) | 30.4 | C DA | rik: | ABORT | OR P | |
| DMA RE | nountains OUESTS | | | FLAG | A | <u></u> | tors: | 30.4 | C DA | rik: | ABORT | OR 10LE 10LE 20LE (80) 20LE (812) | |
| DMA RE | DUESTS COUESTS | | | FLA0 | | | POPE NON-B | UPPEREC | C BA | FRAME COMPLET | ABORT GOLFGI FO E IDI | OR PARTIES OF TOTAL PROPERTY OF THE PARTIES OF THE | |
| DMA RE | DUESTS COUESTS | | | | | <u></u> | POPE NON-B | 30.4 | C BA | FRAME COMPLET | ABORT GOLFGI FO E IDI | OR J IDLE PROPERTY (BID 113) | |
| DMA RE | DUESTS COUESTS | | | FLAG | 117 | | NON-B Appli | UPFEREC | C DA | FRAME | ABORT ROLL | OR PARTIES OF TOTAL PROPERTY OF THE PARTIES OF THE | |
| DMA RE | OUESTS IN TERRUPTS IN TERRUPTS | | | FLAG | 117 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Acale | PARTIE BOT | MODE TO SERVICE TO SER | FRAME DOMPLET | ABORT POLICE POLICE BOIL | ON PARTY OF THE MALE WAS BEING THE WALE WAS BEING THE WALE WAS BEING THE | |
| DMA RE | OUESTS IN STERRUPTS SELECTION OF SELECTION O | | | | 30 | No. | EMON SIDEN SIDEN MASK | UPPERECE SOF | MODES | FRAME | ABORT POLICE | PART BOOK TO THE PART OF THE P | H 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| DMA RE | OUESTS IN STERRUPTS STERRU | | | | 30 | No. | Acale Acale | UPPEREC UPPERE | CDA MODE | FRAME COMPLET | ABORT POLICE OF THE POLICE OF | ON PARTIES OF THE PAR | H 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| DMA RE | OUESTS IN STERRUPTS SELECTION OF SELECTION O | | | | 30 | No. | Acade Aram in testing a series of Francisco | uppener 198 | C BA | FRAME COMPLET | ABORT POLICE | TOTAL | |
| DMA RE | OUESTS IN STERRUPTS STERRU | | | | 30 | ok v | Acade Aram in testing a series of Francisco | uppener 198 | C BA | FRAME COMPLET | ABORT POLICE | TOTAL | |
| DMA RED DATA II | OUESTS IN STERRUPTS STERRU | | | | 90 15 10 10 10 10 10 10 10 10 10 10 10 10 10 | ost vi | Acalification of the second of | UFFEREC 198 198 198 198 | C DA | FRAME COMPLET | ABORT POLICE | ON PARTIES OF THE PAR | |
| DMA RE C DATA III | OUESTS INTERRUPTS NTERRUPTS 11 12 13 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18 | FIAG | FLAG | FI ₂ | 90 15 10 10 10 10 10 10 10 10 10 10 10 10 10 | ost de la constant de | Acale Acade | ufference tog | CDA CDA MOOS MOOS MOOS MOOS MOOS MOOS MOOS MOO | FRAME COMPLET | ABORT POINT OF THE | PATE OF THE PATE O | |
| DMA RECOMMENDED | OUESTS ON TERRUPTS OF THE CONTROL OF T | FLAG | FLAG | Fig. 3. A. o the maj | gure 18 | i. Typic | Acade Aram seal France Aram SA. PA. PA. PA. PA. PA. PA. PA. PA. PA. P | Tes Leave | CDA CDA MOOS MOOS CON CON CON CON CON CON CON | FRAME COMPLET | ABORT POST OF | TOP PARTIES OF THE PA | COLUMN TO THE PARTY OF THE PART |
| DMA RE C DATA ## CPU II | OUESTS OF COMMENTS | roper ope | FLAG | Fig. | gure 15 | i. Typic | ACAIN NON-BARNAM NON-BARNAM NON-BARNAM NON-BARNAM NOSAI Francisco (A. P.A. P.A. P.A. P.A. P.A. P.A. P.A. | Teg Teg Teg Teg Teg Teg Teg Teg Teg Teg | MOOF | FRAME DOMPLET | ABORT ACISSI A POOR E BO ADD ADD ADD ADD ADD ADD ADD A | TOP PARTIES OF THE PA | COLUMN TO THE PARTY OF THE PART |
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| DMA RE C DATA ## CPU II | OUESTS OF COMMENTS | roper ope | FLAG | Fig. | gure 15 | i. Typic | Acade | 198 1 | CDA CDA LO LO LO LO LO LO LO LO LO L | FRAME DOMPLET | ABORT ACCOUNTS OF THE STATE OF | TO P P P P P P P P P P P P P P P P P P P | |
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8273, 8273-4 <u>,, 70, 1,47, 30, 5, 30, 30, 5</u> A 9. 4 **WAVEFORMS COMMAND PHASE** 74.4 300M RETTUR CPBF Flagre 18 . Typical Frame Transcriedo - ... Corea Mone Table 2. Command Phase Timing (Full Duplex) Buffered Non-Buffered **Timing Parameter** Symbol Min. Min. Max. 758 Between command & first parameter 10 705 T2 -- 10 604 Between consecutive parameters NIV 10 10 604 705 T3_ Command Parameter Buffer full bit BOOM REVIVE Reset after Parameter loaded 128 803. Command busy bit reset after last parameter 10 604 10 CPBF bit reset after last parameter Figure 36b. Typical Frame frame anua, n is meum DRG-1 × AC.T ORUP 2 24(1+P Figure 17, 0272 Syr. 500.4....

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8273, 8273-4 **SOLUTE FIAXIMUS BATINGS!** WAVEFORES (C. 16 more WEFORMS (Continued) Milly allow timestaly ECEIVER INTERRUPT CHI 72 Oxigut Phay, visings 475 . ::-Higher Cosos Company, 2015 Oxput teur zp Curan Von Supply Courte Table 3.7 Receiver Interrupt Result Timing Non-Buffered Timing Parameter (clock cycles)

Aum aum aum aum L'Unit, a tymbol Max. Min. Max. n: 29 xĭ يى د 18 29 RxIRA bit-set after RIC read 200: -V ್ತನ್ನ 18 Libra : 16 27 16 RxINT goes away after last Int. Result Ummaber da Para - 1/5 Capacitiunce Returned baself CONFERMENTS HOS TAPOT WITE Som thanks to risk Cinck i ta Steek Trialine Color Cicas Sya

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WAVEFORMS (Continued)

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Ambie

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Power

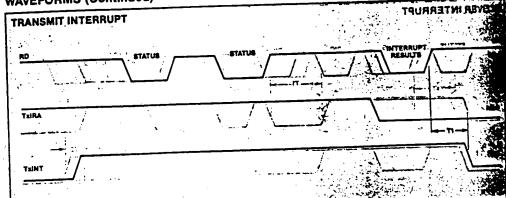


Table 4. Transmit Interrupt Result

| | During ports position | | ered | Non-Bu | NU | |
|----------------|--|---------|-----------------|--------------|----------|-------|
| Symbol | Timing (Clock Cycle) | .c.Min. | Max. | Min. | Max. | -19-2 |
| | TxINT inactive after Int. Results read | BI 13 | 353 566 | OIR 13116 Je | NO 4544R | 16. |
| T | | . at 16 | ust intellerant | TOTAL YEWR | BANT COM | |
| () | 1 | | - 30 | 1/2 × 12 | - | 117 |

702

8273; 8273-4

ABSOLUTE MAXIMUM RATINGS* AV D # 34.

Ambient Temperature Under Bias #16.71777 0°C to 70°C Witage on Any Pin With
Bespect to Ground
Sepect to Ground
Sepect to Ground
Sepect Discipling
September Discipling Power Dissipation.__ ัยก 37.15

*NOTICE: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability. Str.W saluq OH. RR!

Data Delay from Acting Cata Delay from RU . Na Strankore 2 DC CHARACTERISTICS (8273, 8273-4) (TA = 0°C to 70°C, Voc = +5.0V ± 5%)

| Symbol | /ZM.107 T. Parameter | Min. | Max. | Unit | Test Conditions |
|-------------------|--------------------------------|-------|-----------------------|----------|--|
| V _{IL} | input Low Voitage | 0.5 | _ 0.8 . | ٧ | Curtar Corne Cor |
| V _M | | _ 2.0 | V _{CC} + 0.5 | V | |
| V _{OL} | Output Low Voltage | . 10 | 0.45 | v | IOL = 2.0 mA for Data Bus Pins T IOL = 1.0 mA for Output Port Pins Ti IOL = 1.6 mA for All Other Pins Tins |
| T _A OH | -Output High Voltage | 2.4 | | ٧ | I _{OH} = -200 μA for Data Bus Pins I _{OH} = -100 μA for All Other Pins |
| j | Input Load Current | | ±10 | · µA ··· | V _{IN} = V∞ to 0V, q√√ |
| OFL | Output Leakage Current | | ± 10 | μA | Vout = Vcc to .45V |
| . lœ | V _{CC} Supply Current | | 180 | mA | HAV DIGHT GIOTE STRUCT COMP |
| | 4 | | 1 | • | HER TH GUEST MUTHOR CONT. |

CAPACITANCE (8273, 8273-4) (TA = 25°C, Vcc = GND = 0V)

ar;

| Sym | bol:.J. | Jise Parameter | Min. | Тур. | Max. | Unit :: | Test Conditions !- |
|----------------|---------|-------------------|------|------|------|---------|---------------------------------------|
| _ C | | Input Capacitance | 20:) | | 10 | ρF | n Tc≡ 1MHz co |
| C ₁ | | I/O Capacitance | - | | 20 | pF | Unmeasured Pins Returned to GND:HT |

Test Conditions

Symbol Ferameter And Washiel forest Carl Canal Name

י שבנה אסות זיני

AC. CHARACTERISTICS (TA=0°C to 70°C, Va=+5.0V±5%) CLOCK TIMING (8273)

Test Conditions Max. Unit Min. Typ. Symbol Parameter 1000 Clock 64K Baud Max · ns: Operating Rate 120 Clock Low .

CLOCK TIMING (8273-4)

tcH

| Symbol : are t | Parameter e: | : Min. | Тур. | Max. | Unit | , Test Conditions |
|----------------|--------------|--------|------|------|-------|--------------------------------|
| 1 tor | Clock 1 e | 286 | | 1000 | F. NS | THE PART I OF |
| ic. | Clock Low | 135 | | | ns · | 56K Baud Max Operating Rate |
| 1сн | Clock High * | 135 | | | ns | 0,5 4.44 1 +103 |

- :2:"'04

WE fied anyut har in 2,007, her as 28%

Clock High

a on employable ground has di that turn, VRS to the same side ing type of a parenty of memmod parents of the to the networks and cocernation netwe, this specificand

JOHN YOU SHEET HIM

init_2

C. CHARACTERISTICS (8273, 8273-4) (TA = 0°C to 70°C, Vcc = 450V ± 5AR MUNIXAM STUJO 21

| | aut has vido primition | Min. | Max. | - Unit - | Test Conditions |
|-----------------|--------------------------|------|-------------|----------|------------------------|
| ymbol | Parameter | 0 | | ns · | Note 2 |
| AC n 6 | Select Setup to RD | | | · na | Note 2 ' |
| CA JU"" | Select Hold from RD | 0 | ļ | ns | |
| RA | RD Pulse Width | 250 | 1 | na na | - Note 2 |
| | Data Delay from Address | | 300 | 118 | CL = 150 pF, Note 2 |
| AD | Data Delay from RD | | 200 | ns | CL = 20 pF for Minimum |
| I _{RD} | - Output Float Delay - | - 20 | 100 _ [| na | - 150 pF for Maximum |
| 1DF | DACK Setup to RD | 25 | | ns 、 | 1 |
| 1 ₀₀ | DACK Hold from RD | 25 | | ns - | 1 |
| 100 | - Data Delay from DACK - | | | ns | to Vote Vot |

| VRITE CYCL | E _{into} Con FAmD = 100 - 100 | 02.0 | | 1 | Test Condi | llone |
|------------|--|------|-----------------|----------|------------------|--------------|
| | Parameter . | Min. | Max. | Unit_ | | Y |
| Symbol | | 0 | 3. 5 | 78 | e equi enatu@ | 1.57 |
| TAC TEL | Select Hold from WR | 0 | :::=====. | _ ns : - | | NC NC |
| ICA | WR Pulse Width | 250 | | ns i | io sessi suoni | 1 13/1 |
| tww | | 150 | | | Output Leaker | |
| tow | Data Setup to WR | . 0. | marin Englisher | | ig fludng ≎c∧. | <u>1 (6)</u> |
| two | Data Hold from WH | 25 | 1.1-664 | ns N | a' la's mainte . | |
| loc . | DACK Setup to WR | 25 | | ns | * ag | |
| s top | DACK Hold from WR | | | | | ATITAD |

| * tcp | DACK Hold from VVII | L | | ***** | CARACITALICE |
|--------|----------------------------|------------|-----------------|---------|------------------------|
| DMA : | ter vi | 100 = C.36 | 1 - 7 1 CAR - 1 | 1) 1842 | CARACITANICE (SEED RE) |
| | | Min. | Max | Unit: | Test Conditions |
| Symbol | Parameter | | | | Theat Can |
| | Request Hold from WR or RD | } ; | 200 | o.us | / |
| 1: 100 | (for Non-Burst Mode) | <u> </u> | | | 2t Con 1 100 |

OTHER TIMING Test Conditions Unit Min. Parameter Symbol tcy 10 C. CHARACTERISTI Ment. Reset Pulse Width **TRSTW** 5024 ± C*0'20' C'0 = Input Signal Rise Time ומכלבו שהואות אטטן ns Input Signal Fall Time 2 Reset to First IOWR IRSTS:

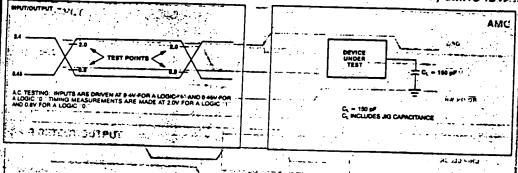
| Latersz " | 32X Clock Cycle Time | 13.02 164 | 250 | | - x0012 | VO1 - 1 |
|------------------|----------------------|--------------------------|--|--------|-------------|---------------|
| | 32X Clock Low Time | 4 · tcy | | ns | L door | النا النا |
| tcusz , | 32X Clock High Time | 4 · tcy | 120 | 110 | | 1 2 |
| t CH32 □ | | 1 · tcy - 50 | 120 | ins di | Glock His | |
| topu | DPLL Output Low | 1 · tcy - 50 | | กร | | |
| 1 _{DCL} | Data Clock Low | | | ns | | |
| †DCH | Data Clock High | 2 · tcy | 1 reibit | | PERSON | Note 3'Dring? |
| tocy | | 62.5 · tcy/1 | | 1118 | | l vot |
| | Transmit Data Delay | | 25:005 | n8 | Shock | |
| ! tro | | 200 | 1 364 | ns · | 1 8 2017 | 10,00 |
| t _{DS} | "Data Setup Time | 100 | | ns | 7.0 | |
| t _{DH} | Data Hold Time | | | ns - | | |
| | FLAG DET Output Low | 8 · t _{CY} ± 50 | <u> </u> | | | -1.590 |
| TFLD | | | 1.5 | * | • • • • • | |

₹ tcp

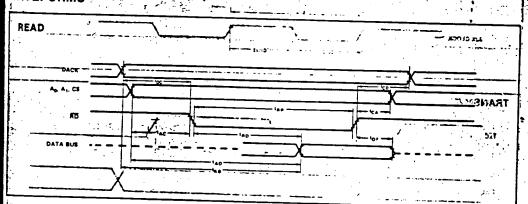
- All timing measurements are made at the reference voltages unless otherwise specified: input Output "1" at 2.0%, "0" at 0.8%.
- 2. t_{AD}, t_{RD}, t_{AC}, and t_{CA} are not concurrent specs.
- 3. If receive commands or Read/Write Port commands are issued while b will be 81.5 Tcy min.

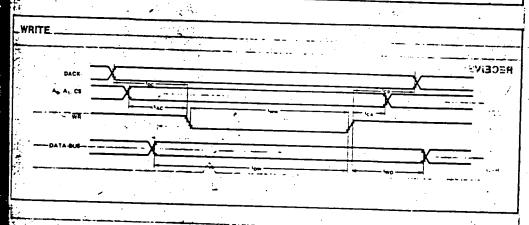
AC. TESTING INPUT, OUTPUT WAVEFORM

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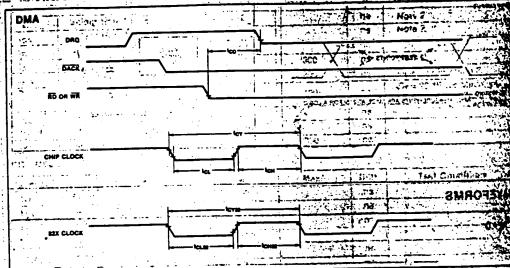
WAVEFORMS

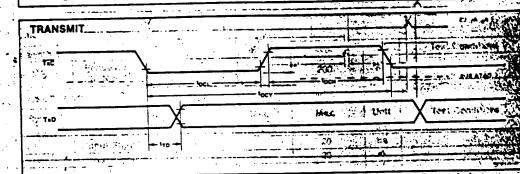


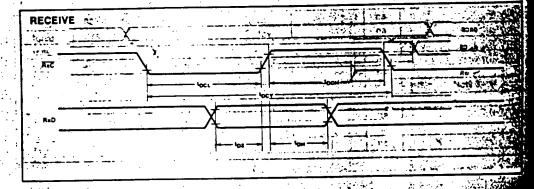


AC CHARACTER STICS WAVEFORMS (Continued) CAC. TESTING LOAC (DENTITION OUTPUT WAVEFORM) I Salag Sen 1









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2274 MULTI-PROTOCOL SERIAL WAVEFORMS (Continued) (DESC) PROJECTION

DPLL OUTPUT recisement was may Asymptonic at Asynchronic at a e Eyte Synchronous: (און באון ביוועטוועטוועט לוף או ביויריי The Stine Charecters ... tomatic CRC Generation and Jwo Indenendent Full Ducter. Transmitters and figerivers Fully Compatible with 3048, 2071, 2035. -- 19M'Risyno Computible

Production of the second of th and \$237 DMA Commoders; and body 1 C FLAG DETECT OUTPUT DE PER DU LO LOS EN Secondina de la constante de lเล่นบ คิกัน มีเริ่มกรนุขยกได้

- A Jamaile Zero Bit Insertion Zeron Baud Rate: DC to 900K Saud

- Au conatic CRC Generation and Asynchronous: Theory Checking (CC) 150 בים לוא ביינים ביינים ביים לוא פיים

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the man deptember of the same of the CONTRACTOR ASSESSMENT the antomical to reach

- Online Product Data -

CONTENTS

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Full size photo

P Features

Detailed description

Pricing

VL-7315

Quad RS-422/485 Interface Card

RS-422/485 serial I/O card with prioritized vectored interrupt controller.

×

Features

" Four Serial Channels

Independent Full Duplex Channels

Asynchronous, BISYNC, SDLC, and HDLC Protocols Programmable Local Loopback Mode for Diagnostics

Programmable Transfer Rates to 1.2 MBits/Second

On-Card Vectored Interrupt Controller

DMA Handshake Support for High Speed Data Transfers

Extended Temperature Version Available (VL-73CT15)

)://www.versalogic.com/Ds/7315.htm

1/15/99

| STD Z80, STD 80 Compatible Plug-In Replacement for Pro-Log 7315 | | |
|---|---|---|
| STD Z80, STD 80 Compatible Plug-In Replacement for Pro-Lo | × | *************************************** |

Description

loopback mode is provided for communication diagnostics. DMA control lines are available for high speed data transfers using an communication controller chip. Both synchronous and asynchronous serial protocols are supported. A programmable local The VL-7315 cards provides four independent full duplex RS-422/485 channels using the industry standard 8530 serial external controller. The on-board prioritized vectored interrupt controller is both STD 280 and STD 80 compatible.

Bus Interface

The VL-7315 supports 8 and 10-bit I/O addressing. Eight consecutive I/O addresses are used

The IOEXP line can optionally be used as a qualifier to either double the effective address space or to act as a block enable in a 16-bit I/O addressing scheme.

RS-422/485 Interface

RS-485 features the same characteristics with the additional capability of operating in a multidrop master/slave configuration with The RS-422 interface allows high-speed, long run (to 4,000 feet), noise immune communication for point-to-point applications. up to 32 stations.

signals are not needed, the clock signal pair may be jumpered for use as handshaking signals. In RS-485 mode, the line drivers for Two differential signal pairs are provided on each channel to receive and transmit serial data and clock information. If clock the transmit data and clock signals can be disabled under software control.

Asynchronous Mode

functions include number of data bits, number of stop bits, and parity bit formats. Handshake lines are provided to control data All common asynchronous communication formats are easily programmed into the serial controller chips. Programmable

Synchronous Modes

Several standard synchronous protocols are programmable on the VL-7315. Formats supported include BISYNC, SDLC, and

HDLC. Four data encoding methods are possible, NRZ, NRZI, FMI, and FM0. The synchronous clock can be received on a separate RS-422/485 line pair or can be recovered from NRZI or FM data using the built-in digital phase-locked loop.

Baud Rates

Independent programmable baud rate generators are provided for each channel. All standard asynchronous baud rates from 50 to 76.8K baud and synchronous baud rates from 50 to 1.2M baud can be software selected. An external RS-422/485 clock can also be used as the transmit and/or the receive clock.

High Speed Data Transfer

plane connector. If a DMA controller is not available, high speed non-polled data transfers can occur using an optional wait state Buffered DMA hand shake lines are provided on two channels to communicate with an external DMA controller through a front method.

Interrupt Controller

The VL-7315 are capable of generating vectored interrupts in response to a variety of events. On-card sources such as transmit buffer empty, receive data available, and handshake status line change can generate independent interrupts. The interrupt controller can also be triggered by external signals connected to the 12-pin interrupt header.

I/O Connection

Each channel has a 10-pin latching header connector. Standard mass terminated flat cables or twisted pair flat cables can be used.

Compatibility

The VL-7315 is compatible with the STD Z80 and STD 80 specifications.

For applications requiring an RS-232 interface see VersaLogic's VL-7312 and VL-7314 cards.

Pro-Log Replacement

The VL-7315 is part of VersaLogic's Direct ReplacementsTM line of STD Bus products. This board is functionally equivalent to Pro-Log's 7315 board. When jumpered to match Pro-Log's functions, the VL-7315 may be plugged directly into your existing system.

Ordering Information

VL-7315 Quad RS-422/485 Interface Card

VL-73CT15 Extended Temperature Version: -40° to +85°C Operation

CDS 2008179

CDS 2008180

1/15/99

Pricing

Click here for pricing information.

×

Specifications

[Specifications are typical at 25°C with 5.0V supply unless otherwise noted]

Size:

Meets all STD Bus mechanical specifications

Storage Temperature:

-40° to +85°C

Free Air Operating Temperature:

VL-7315: 0° to +65° C

VL-73CT15: -40° to +85°C

Power Requirements:

VL-7315: 5V ±5% @ 875 ma typ. VL-73CT15: 5V ±5% @ 510 ma typ.

Addressing: I/O, 8 or 10-Bits plus IOEXP

8 byte block on any 8 byte boundary Mapping:

Bus Compatibility:
STD Z80: Full compliance, all bus speeds
STD 80: Full compliance, all bus speeds
STD 32: I/O slave, SA8-1, SDMA8

Specifications are subject to change without notice.

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VersaLogic Corp. (800) 824-3163 or (541) 485-8575 3888 Stewart Road - Eugene, OR 97402 http://www.VersaLogic.com

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This page was last updated on: October 26, 1998

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|-------------|---|-------------------------------------|--|
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| 5 | MCANDREWS, HELD & MALLOY, LTD. 500 West Madison Street, 34th Floor | | |
| 6 | Chicago, Illinois 60661 (312) 707-8889 | | |
| 7 | Robert C. Ryan, Esq. Ian F. Burns, Esq. | | |
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| 9 | 560 East Plumb Lane Reno, Nevada 89515-0038 | | |
| 10 | Attorneys for Defendants CASINO DATA SYSTEMS AND | | |
| 12 | SUNSET STATION HOTEL AND CASINO | | |
| 13 | UNITED STATES DISTRICT COURT DISTRICT OF NEVADA | | |
| 14 | MIKOHN GAMING CORP. | , | |
| 15 | Plaintiff, | | |
| 16 | V. |))) CV-S-98-01462-PMP (RJJ) | |
| 17 | ACRES GAMING, INC., |) (103) | |
| 18 | Defendant, | EXPERT WITNESS REPORT OF | |
| 19 | ACRES GAMING, INC, | LEROY A. PROHOFSKY | |
| 20 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 21 | Plaintiff, |) | |
| 22 | V. , |) | |
| 23 | MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & |) | |
| 24 | CASINO, LLC; CASINO DATA |) | |
| 25 | SYSTEMS; and SUNSET STATION HOTEL & CASINO, | | |
| 26 | Defendants. |)) | |
| 27 | | | |
| 28 | | | |

My name is Leroy Prohofsky. I have been retained as an expert by Defendant Casino Data Systems (CDS) and have been asked to opine as to whether claim 22 of U.S. Patent 5,836,817 ("the '817 patent") is anticipated by the prior art, whether claim 22 of the '817 patent would have been obvious to one of ordinary skill in the art at the time of the "invention," and whether claim 22 the '817 patent is otherwise invalid for failure to comply with 35 U.S.C. § 112, e.g., whether claim 22 meets the description requirement and whether claim 22 particularly points out and distinctly claims particular subject matter. In addition, I have been asked to opine as to whether the accused CDS product infringes claim 22 of the '817 patent. I have been asked to submit this report setting forth my opinions and the basis and reasons therefore, the information I considered in forming my opinions, and identify any exhibits used to summarize or support my opinions. I submit this report pursuant to Federal Rules of Civil Procedure 26(a)(2).

I. EXPERT QUALIFICATIONS

My qualifications are as set forth in my previous Expert Witness Report dated February 16, 1999, made in connection with the 1383 case, regarding the invalidity of U.S. Patent 5,752,882.

II. QUESTIONS INVESTIGATED AND INFORMATION CONSIDERED

A. Questions Investigated

CDS's counsel has asked me to provide my opinion and to testify at trial concerning the '817 patent. Specifically, I have been asked to opine on the following issues:

- 1. What does the '817 patent teach?
- 2. What is the scope and content of the prior art to the '817 patent?
- 3. What are the differences, if any, between the subject matter claimed in the '817 patent and the prior art?
- 4. What is the level of skill of a person of ordinary skill in the art to which the '817 patent pertains at the time of the alleged invention of the '817 patent?

| 2 | 5. | Are the claims of the '817 patent anticipated or obvious to a person of ordinary skill in the art at the time of the alleged invention of the '817 patent? |
|----------|---|--|
| 3 4 | 6. | Do the claims of the '817 patent particularly point out and distinctly claim the alleged invention? |
| 5 | 7. | Are the claims of the '817 patent infringed by the accused CDS product? |
| 6 | 8. | Do the claims of the '817 patent comply with the written description requirement of 35 U.S.C. Section 112? |
| 8 | 9. | Were the claims of the '817 patent "patent ready" as of October 12, 1993? |
| 9 | 10. | Are any of the following references material to the examination of the claims of the '817 patent and its patent application? |
| 11 | | (a) "Gaming Innovations Concept III," #2002918-20029932. |
| 12 | | (b) Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities and Exchange Commission. |
| 14 15 | | (c) Acres progressive jackpot system for table games (installed in August 1993 at Rio Suites Hotel & Casino in Las Vegas). |
| 16 17 | B. Law | Supplied |
| 18 | CDS's attorneys supplied me with the information about patent law as set forth in Section II | |
| 19 | B of my previous Expert Witness report dated February 16, 1999. In addition, a description | |
| 20 | requirement is imposed by 35 U.S.C. §112, first paragraph. | |
| 21 | The specification shall contain a written description of the invention, and of the manner and process of making and using it" | |
| 23 | The description requirement comes into play when a claim as originally filed is later amended, or | |
| 24 | when a new claim is added by an applicant for a patent at some stage after the original filing date | |
| 26 | If the amended or added claim does not find support in the specification in the sense that it is for a | |
| 27 | invention not sufficiently described therein, the description requirement is not met. The | |
| 28 | specificatio | n must convey clearly to those skilled in the art that the applicant had invented, as of the |

| 1 | filing date of the application, the specific subject matter which is later claimed. The description | | |
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| 2 | requirement is not met if a claim contains an element or limitation that is not supported by the | | |
| 3 | specification. | | |
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| 5 | C. I. C | | |
| 6 | C. Information Considered | | |
| 7 | I have considered the information cited in Section II C of my previous Expert Witness | | |
| 8 | Report plus the following documents | | |
| 9 | 1. The '817 patent and its prosecution history and cited prior art. | | |
| 10 | 2. CDS's Third Motion for Summary Judgment of Invalidity of U.S. Patent No. | | |
| 11 | 5,752,882 (On-sale Bar) plus the exhibits in support of that Motion. | | |
| 12 | 3. CDS's Fourth Motion for Summary Judgment of Invalidity of the '882 Patent for | | |
| 13 | Failure to Comply With The Written Description Requirement of 35 U.S.C. §112 and Countermotion to Dismiss for Lack of Subject Matter Jurisdiction. | | |
| 14 | | | |
| 15 | 4. The references cited in this report. | | |
| 16 | Should additional evidence related to this report come to my attention in the future, I will | | |
| 17 | examine that as well. Should it become necessary, I will supplement this report. | | |
| 18 | | | |
| 19 | III. SUMMARY OF OPINIONS | | |
| 20 | Based on my study as described above, my opinions may be summarized as follow. | | |
| 21 | 1 Claim 22 of the 1917 natent is anticipated by the Driot | | |
| 22 | | | |
| 23 | publication titled "Gaming Innovations Concept III", #2002918 - 20029932 ("Concept III", | | |
| | brochure"). | | |
| 24 | B. It is also my opinion that at least Claim 22 of the '817 patent is anticipated by the | | |
| 25 | Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities | | |
| 2. | 1 | | |

and Exchange Commission ("Acres SB-2").

| C. | It is also my opinion that at least Claim 22 of the '817 patent would have been | | |
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| | | | |
| obvious at the | e time of the alleged '817 invention, when the U.K. Patent Application GB2151054A | | |
| is considered | is considered in light of prior casino automation practices. | | |
| D. | It is also my opinion that at least Claim 22 of the '817 patent, if broadly construed, | | |
| is anticipated | by the Acres progressive table games (installed in August of 1993 at Rio Suites | | |
| Casino). | | | |
| E. | It is also my opinion that all Claims of the '817 patent would have been obvious at | | |
| the time of | the alleged '817 invention to a person of ordinary skill in the art, in view of the | | |
| following re | ferences: | | |
| 1. | Concept III brochure. | | |
| 2. | Acres' SB-2 | | |
| 3. | U.K. Patent Application GB2151054A. | | |
| 4. | Acres Concept III accounting and player tracking system (e.g., the system installed at the Winnebago Casinos and other casinos). | | |
| 5. | S-Plus machine of IGT. | | |
| 6. | Acres progressive table games and software (e.g., the system installed in August 1993 at the Rio Suites Casino). | | |
| 7. | General references relating to networked systems. | | |
| 8. | I will review the Mikohn deposition and documents to be produced by Mikohn in | | |
| | connection with the Mikohn Controller/System as prior art. | | |
| F. | It is also my opinion that at least Claim 22 of the '817 patent was patent ready prior | | |
| to October | 12, 1993. The descriptive materials available to the inventors as of October 12, 1993 | | |
| provided sufficient information from which to file a patent application so as to support at least | | | |
| claim 22 of the '817 patent. | | | |
| G. | It is also my opinion that there is no consistent standard of enablement for which | | |
| claims 22 | of the '817 patent would be both enabled by the '817 patent specification and non- | | |
| | is considered D. is anticipated Casino). E. the time of following res 1. 2. 3. 4. 5. 6. 7. 8. F. to October provided sinclaim 22 of G. | | |

obvious in light of the Concept III brochure since this prior Coucept III brochure discloses an embodiment of claim 22 in substantially the same level of detail as the embodiment in the '817 patent specification.

- H. It is also my opinion that Claim 22 is not infringed by the accused CDS product.
- I. It is also my opinion that the '817 patent specification does not comply with the written description requirement of 35 U.S.C.Section 112.

These opinions cover claim 22 which Acres has asserted. I may also offer opinions on anticipation and obviousness of other specific, unasserted claims after discovery is completed in this action.

IV. BASES FOR OPINIONS

A. Overview

Since the '817 patent and the '882 patent share a common specification, the overview Section IV A of my previous Expert Witness report applies here.

B. The Person of Ordinary Skill in the Art

Section IV B of my previous Expert Witness report also applies here. Since preparing my previous report I have identified the following additional references which are further illustrative of the knowledge I impute to a person of ordinary skill in the art at the time the '817 patent was filed:

1. The text "A systems Approach to Programmable Controllers", Fred Swainston, 1992, is one of many publications which show that the hardware required to perform the methods of the asserted claims was typical of networked automation systems. Further, the operation of certain systems described by Swainston have a high correspondence to the steps of the claimed methods.

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2. The 1999 catalog "Guide to Control Products" published by Z-World is generally descriptive of the programmable controllers described by Swainston. Although this publication is not itself prior art, it is nevertheless generally representative of the state of the art in 1992. I recognize the BL1200 described on page 47 to be the same as the product offered for sale as the "Little PLC" in the December 1992 issue of Byte magazine. All of their 1999 products share the salient features of the Little PLC. This publication provides further evidence that well-known automation principles are common to a wide range of applications, including casino automation:

Approximately 250,000 Z-World controllers are installed worldwide in a diverse range of applications:

- Material handling systems
- GPS vehicular fleet tracking
- Automated fabrication machinery
- Municipal water system control
- Large building HVAC control
- Gaming machine monitoring
- Railroad monitoring systems
- Oil, gas, and water RTUs
- Security and alarm control

C. Enablement

Section IV C of my previous Expert Witness report also applies here.

D. Claim 22 of the '817 patent is anticipated by the prior publication titled "Gaming Innovations Concept III, #2002918 - 20029932"

Claim 22 of the '817 patent is very similar to claims 10 and 19 of the '882 patent. The basis for my opinion that claim 22 is invalid includes the element-by-element analysis set forth in

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section IV D of my previous Expert Witness report. In this analysis I will compare the scope of claim 22 with the scope of claim 10 and explain why my previous analysis also applies to the newly asserted claim 22.

1. Preamble

Claim 10:

A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:

Claim 22:

A method of operating gaming devices interconnected by a computer network to a host computer having a user-operated input device comprising:

The preambles of claim 10 and claim 22 have the identical scope notwithstanding the different language since in the digital computer art the term network includes any means by which a host computer and remote devices such as gaming devices are interconnected. Section D1 of my previous analysis also applies here.

2. Preselecting

Claim 10:

preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

Claim 22:

preselecting less than all of the gaming devices interconnected by the computer network responsive to a user-effected action at the input device;

These steps also have the identical scope notwithstanding the different language since any network communication, including the communication necessary to operate a network of gaming devices, must rely upon a unique address code. Section D3 of my previous analysis also applies here.

3. Network Tracking

Claim 10:

using the network to track activity of the preselected gaming devices;

Claim 22:

using the network to track the amount of money played on the preselected gaming devices;

Claim 22 is narrower than claim 10 in that it requires that the tracked activity be the amount of money played. However, the '817 specification concedes that it was known to extract accounting information from gaming devices. Further the Concept III disclosure states that it collects all information required for proper accounting reports. Such information must include the amount of money played. Section D4 of my previous analysis also applies here.

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4. Allocating

Claim 22:

allocating a predetermined percentage of the money played to a bonus pool; and

*817 Specification

"Another reconfiguration command allows any number of machines on the network to be combined in a common jackpot having a common jackpot payout schedule, wherein the reconfiguration command reconfigures the selected machines to payout in accordance with the common jackpot payout schedule. In this case, the reconfiguration message would be queued up for each of the selected machines to be combined in a common jackpot. One example of a common jackpot is a progressive jackpot. Unlike the prior art progressive jackpot systems, however, the progressive jackpot according to the invention is not limited to a predetermined number of machines. In the prior art progressive jackpot systems, a bank of machines are connected to a common progressive jackpot controller and only those machines can be included in the progressive jackpot. In contrast, any machine on the network including those connected to other floor controllers can be combined into a common progressive jackpot. Moreover, the number of progressive jackpots is not limited by the number of floor controllers since one floor controller can manage more than one progressive jackpot." Col. 36, lns. 35-54.

Concept III

Standard progressive jackpots are also possible. Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personal computer. You simply type in which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc. Then you can mount jackpot displays anywhere in the casino. All you have to do is set the

display to match the jackpot number it is to display. Up to 64 separate jackpots are allowed. #2002923.

The claimed step of allocating merely states the method used by prior progressive games to determining the value of the progressive jackpot. This step is taught by the Concept III disclosure.

The Concept III disclosure is enabled because the step of allocating money to a progressive jackpot was well known and well within the skill of the artisan in 1993.

My conclusion that the Concept III is an enabled, anticipatory reference is further supported by comparison of the technical particulars disclosed by the '817 patent with those taught by Concept III.

5. Issuing Command

Claim 10:

issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and paying at said one gaming device in accordance with the command.

Claim 22:

issuing a command over the network to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event.

The description of Concept III, DX 3, which I considered in my previous analysis is not explicit regarding the source of the command which causes a bonus to be paid. The statement that "Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts," could be accomplished by either of two methods, described briefly as follows:

Method A

| 1 | (a) | A predetermined event, such as the time of day, causes the host computer to initiate |
|----|--------------|--|
| 2 | | a bonus promotion. |
| 3 | (b) | During the bonus promotion period the host computer repeatedly tests to determine |
| 4 | | if a bonus win has occurred. |
| | (c) | Upon determining that a win has occurred, the host computer determines the bonus |
| 5 | | amount and sends a payout command message over the network to the winning |
| 6 | | game. |
| 7 | (d) | At the game, the payout command message is interpreted to generate the commands |
| 8 | • | which cause the payout. |
| 9 | | |
| 10 | Meth | |
| 11 | (a) | A predetermined event, such as the time of day, causes the host computer to initiate |
| 12 | | a bonus promotion. |
| 13 | (b) | The host computer sends a reconfiguration command message over the network to |
| 14 | | modify the mode of operation of the participating games. For example, the |
| | | reconfiguration command message for a "double jackpot" promotion configures the |
| 15 | | game to pay twice the amount normally paid. |
| 16 | (c) | During the bonus promotion period the game computer tests to determine if a bonus |
| 17 | | win has occurred. |
| 18 | (d) | Upon determining that a win has occurred, the game computer generates the |
| 19 | [| commands which cause the payout according to the mode for which it has been most |
| 20 | | recently configured. |
| 21 | | |
| 22 | Only | method A corresponds to the clear language of "issuing a command over the network |
| 23 | to cause a t | oonus to be paid" For method A the payout command message is the cause of the |
| 24 | game-genera | ated commands which actually affect the automatic payout. For method B the |
| 25 | command so | ent over the network is not a command which causes a bonus to be paid. It merely |
| 26 | | |
| 27 | 1 | Compare to the broader language of claim 10 of the '882 patent which claims "paying in |
| 28 | accordance w | the the command". |

specifies how a bonus payout amount is to be modified for a subsequent win if, and when, such an event might occur. However, the Plaintiffs, in their assertion of infringement, have adopted a broad construction which additionally includes both method A and method B. Under this broad construction sections D5 and D6 of my previous analysis also applies here. Under a narrow construction this claim element would have been obvious.

E. Claim 22 of the '817 patent is anticipated by the Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the Securities and Exchange Commission.

Section E of my previous analysis also applies here.

F. Claim 22 of The '817 patent would have been obvious in view of the U.K. Reference.

Section F of my previous analysis also applies here.

G. Claim 22 of the '817 patent was "patent ready" as of October 12, 1993.

Section G of my previous analysis also applies here. The "Concept 3 Protocol", DX 286 and the "Progressive Jackpot Message Protocol" provides additional evidence that claim 22 was patent ready. These documents define the unique features of a program to perform the steps of the claimed method and are thus a master plan to write the actual program code. The translation of these protocols to a functioning program would have been a routine exercise. The schematic diagram contained in DX274 (Acres Ex. 799 dated 3/9/94) when considered in light of the deposition testimony of John Acres pg. 85, ln. 20 and DX 4, provides additional evidence that the invention of claim 22 was "patent ready" as of October 12, 1993.

H. Acres Progressive table games

I understand that Acres sold and installed its progressive table games by August of 1993 at Rio Suites Casino. Claim 22 recites "gaming devices." Acres progressive table games are "gaming devices." Each table is a gaming device. Each of the elements of claim 22, if broadly construed, is found in the Acres progressive table games.

I. Obviousness

The U.K. Patent Application shows a complete reconfigurable gaming system having a host computer with networked garnes. It would have been obvious to combine the teaching of the U.K. patent application with the Barrie patent (U.S. Patent No. 4,837,728) which teaches a progressive slot machine system. Such a combination meets the limitations of at least claim 22 of the patent.

In addition, a suggestion in the art to make the combination is expressly found in each of the following:

- 1. The automation art in general.
- 2. Concept III brochure.
- 3. SB-2 Form.
- 4. Rio Suite Progressive Table game system. (Describing a network of gaming machines that can be modified without changing the hand-wired configuration).
 - 5. S-Plus IGT machines and machine brochure.

Numerous other permutations and combinations of references are possible. I plan on selecting specific combinations for use at trial based on the claim scope ultimately decided by the Court, and I plan on showing that all claims of the '817 patent are anticipated and/or obvious.

Regarding secondary considerations, I am aware of no commercial success, long-felt need, rapid adoption, copying, or other factors that would suggest non-obviousness. I am aware of

CDS's prior work developing the "Fastest Cash" system which, according to my present understanding contains every element of claim 22, if broadly construed. I am also aware that CDS's engineers began work on at least some features of the accused "Pro-Turbo" system prior to Acres' filing date, and depending on what proof of conception and diligent reduction to practice is offered by Acres, I may supplement my opinion to add opinions regarding prior inventorship under 35 U.S.C. §102(g).

J. Claims 1-28 are not infringed

In my rebuttal report I will respond specifically to any statements made by Acres experts that the claims are infringed by the products of CDS. At a minimum, each of the claims require an automatic payout at, or by, the gaming device responsive to a command. The accused CDS product does not meet this claim requirement.

K. Materiality

I understand that CDS is contending that Acres withheld material prior art from the examiner. I have examined the Concept III, SB-2 documents and the Rio Suites Table games, and can find no reference to them in the file history. They are plainly material as I have shown above. In my own experience, the inventor's own literature is precisely the material that is most likely to be pertinent to the examiner, especially if it teaches the claimed invention and/or suggests that the invention was on sale.

L. Claim 22 of the '817 patent does not comply with the written description requirement of 32 U.S.C. Section 112.

The '817 patent specification does not contain a written description of a user-operated input device as recited in claim 22. The terms "personal computer" or "workstation" do not inherently include a user-operated input device.

M. At trial I intend to also apply the references newly cited in this report to support my opinions regarding the '882 patent. I am continuing my review and I understand that depositions are scheduled, including the deposition of Mikohn. I plan to review information regarding a prior art Mikohn controller which may additionally support my opinion of invalidity as expressed above and as expressed in my Expert Report regarding invalidity of the '882 patent.

Sections VI, VII and IV [sic] on page 38 and 39 of my first report in the 1383 case dated February 16, 1999 is incorporated herein by reference with application to the '817 patent.

Dated: June 34 1999 Alley A Marhifily

| 1 | | Certificate of Service | |
|----|---|---|--|
| 2 | I hereby certify that a copy of the foregoing EXPERT WITNESS REPORT OF LEROY A. PROHOFSKY was served on the following persons: | | |
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| 21 | Dated: June 29 , 1999 | Lee (1. Biordan) | |
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| 1 2 3 4 5 | Bruce W. Benson, Esq. CASINO DATA SYSTEMS 3300 Birtcher Drive Las Vegas, Nevada 89118 Lawrence M. Jarvis, Esq. Gregory C. Schodde, Esq. MCANDREWS, HELD & MALLOY, LTD. 500 West Madison Street, 34th Floor Chicago, Illinois 60661 | RECEIVED JUN 3 1999 PERKINS COIE |
| 6 7 8 9 | Robert C. Ryan, Esq. Ian F. Burns, Esq. IAN F. BURNS & ASSOCIATES P.O. Box 20038 560 East Plumb Lane Reno, Nevada 89515-0038 Attorneys for Defendants | |
| 11 12 13 14 | CASINO DATA SYSTEMS AND SUNSET STATION HOTEL AND CASINO UNITED STATES | S DISTRICT COURT OF NEVADA |
| 15 16 17 18 19 20 21 22 23 24 25 | MIKOHN GAMING CORP., Plaintiff, v. ACRES GAMING, INC., Defendant, ACRES GAMING, INC, Plaintiff, v. MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & CASINO, LLC; CASINO DATA SYSTEMS; and SUNSET STATION HOTEL & CASINO, | CV-S-97-1383-HDM (LRL) (Base File) SUPPLEMENT TO EXPERT WITNESS REPORTS OF LEROY A. PROHOFSKY)))))))) |
| 26 27 28 | Defendants. | |

I am submitting this supplement to my Expert Witness Reports regarding the '882 patent.

1. At page 13, line 19 of my first report insert the following text and table:

The following table contains citations to the text of the Head patent specification which I consider to be most pertinent. For each citation I have identified the claimed step or step which I consider to be alike in principle.

| Citation | |
|-----------------|---|
| col., line | Like Elements of Claims 10 and 19 |
| 12,41-65 | Preselecting/Using/Issuing/Paying/Allocating |
| 13,50-57 | Preamble |
| 14,66- | Paying |
| 15,18 | |
| 17,39- 18,39 | Preamble |
| 18,58- | Preamble |
| 19,12 | Preamble |
| 24,34-39 | Preamble/Associating/Using/Issuing |
| 25,26-68 | Preselecting/Using/Issuing/Paying/Allocating |
| 28,61- | Preselecting/Using/Issuing/Paying/Allocating |
| 29,31 | Trescreening, Using, Issuing, Faying, Anocaring |
| 30,1-20 | Preamble/Preselecting |
| 31,18-43 | Preamble/Associating/Preselecting/Using/Issuing |
| 32,1-27 | Preamble/Associating/Preselecting/Using/Issuing |
| 32,30-39 | Preamble |
| 32,40- | Preamble/Associating/Preselecting/Using/Issuing |
| 33,24 | |
| 37,50-55 | Using |
| 39,35-40 | Using |
| 41,42-49 | Using |
| 44,38- | Issuing |
| 45,6 | |
| 46,27-66 | Using |
| 52,61-67 | Preselecting/Issuing |
| 53,14-18 | Using/Issuing |
| 53,29-31 | Associating |

| Citation col., line | Like Elements of Claims 10 and 19 |
|---------------------|--|
| 60,35-63 | Preamble/Associating/Preselecting/Using/Issuing/Paying |
| 95,1- 96,22 | Paying |

- 2. At page 26, line 24, change "The method of claim 1" to "The method of claim 10."
- 3. At page 37, line 19, change "a payout at the hopper" to "an automatic payout at, or by, the gaming device".

Please supplement my second report as follows:

At page 6, line 19, delete the sentence "Nor is the progressive jackpot amount a command . . . claim 1."

As now supplemented, my reports fully reflect my consideration of the Certificate of Correction for the '882 patent.

Dated: June 24, 1999

LEROY A. PROHOFSKY

| 1 | | Certificate of Service | |
|----|--|---|--|
| 2 | I hereby certify that a copy of the foregoing SUPPLEMENT TO EXPERT WITNESS | | |
| 3 | | A. PROHOFSKY was served on the following persons: | |
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| 21 | Dated: June <u>29</u> , 1999 | Tee (1 Brondan | |
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| 3 | | |
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| 11 | Attorneys for Defendant C'ASINO DATA SYSTEMS | · |
| 12 | • | |
| 13 | | S DISTRICT COURT F OF NEVADA |
| 14 | ACRES GAMING INC. |) . |
| 15 | ACIAS GAMINO INC. | |
| 16 | Plaintiff, | |
| 17 | v. |) CV-S-01462-PMP(RJJ) |
| 18 | MIKOHN GAMING CORPORATION & CASINO DATA SYSTEMS, |) SECOND SUPPLEMENT TO EXPERT WITNESS REPORTS OF |
| 19 | |) LEROY A. PROHOFSKY |
| 20 | Defendants. |)) |
| 21 | |)) |
| 22 | | |
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In response to Plaintiff's request that I identify all documents and things that I considered in forming my opinions I am providing the following supplemental information:

- 1. In forming my opinions regarding the Rio Suites progressive table games I relied upon the Vega deposition, particularly exhibits 190 197.
- 2. For my understanding of the capability of the IGT s-Plus machines, particularly their capability to automatically pay from the hopper in response to an external command, I relied upon the following references:

Excerpts from the publication "Lemons, Cherries & Bells-Fruit-Gum, Bates #CDS 0008042-59.

The deposition of Jay Stone, particularly at pg 21 lns 7-20, pg 123, ln 11- pg 124 ln 7, pg 157, lns 9-22.

Exhibit 214, Bates #CDS 0001664

Fax message titled "IGT-CDS communication protocol" Bates #CDS 0003194-3128.

I may also rely on the following material to support my opinions already expressed:

- 1. The deposition of Ali Safari, and attached exhibits, particularly exhibits 477, 485, 487, 488, 496, and 501.
- 2. IGT Victoria GSAMS Documentation Bates # 8348 9729, particularly 8354-8378, 9144-9151, 9259-9274, 9276-9427, 9433-9448, 9451-9503, 9565-9569, 9582-9610.
- 3. The deposition of Tracy Wormdahl.
- 4. Fax Addressed to Kim Lighthart, Bates # 0048-51.
- 5. C. Brian Harris letter, NGCB 0163-68.
- 6. Table game documents, Bates #CDS 2105614-57.
- 7. Executable program CSTUD.EXE.
- 8. Supplemental Affidavit of Derell M. Johns, Bates #2022333-35.

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- 9. Documents descriptive of the Mikohn Super Controller, Bates #1200000-185? particularly, 24-68, 124-227, 506-518, 830, 834, 848-854, 1010-1067.
- 10. The deposition of Lyle Bell and attached exhibits.
- 11. The documents and things attached to CDS' Motions for Summary Judgment.
- 12. The testimony of Mr. Dempsey, especially the testimony regarding prior art control systems.
- 13. CDS' Fastest Cash system described by CDS' Fastest Cash manuals and Fastest Cash source code.

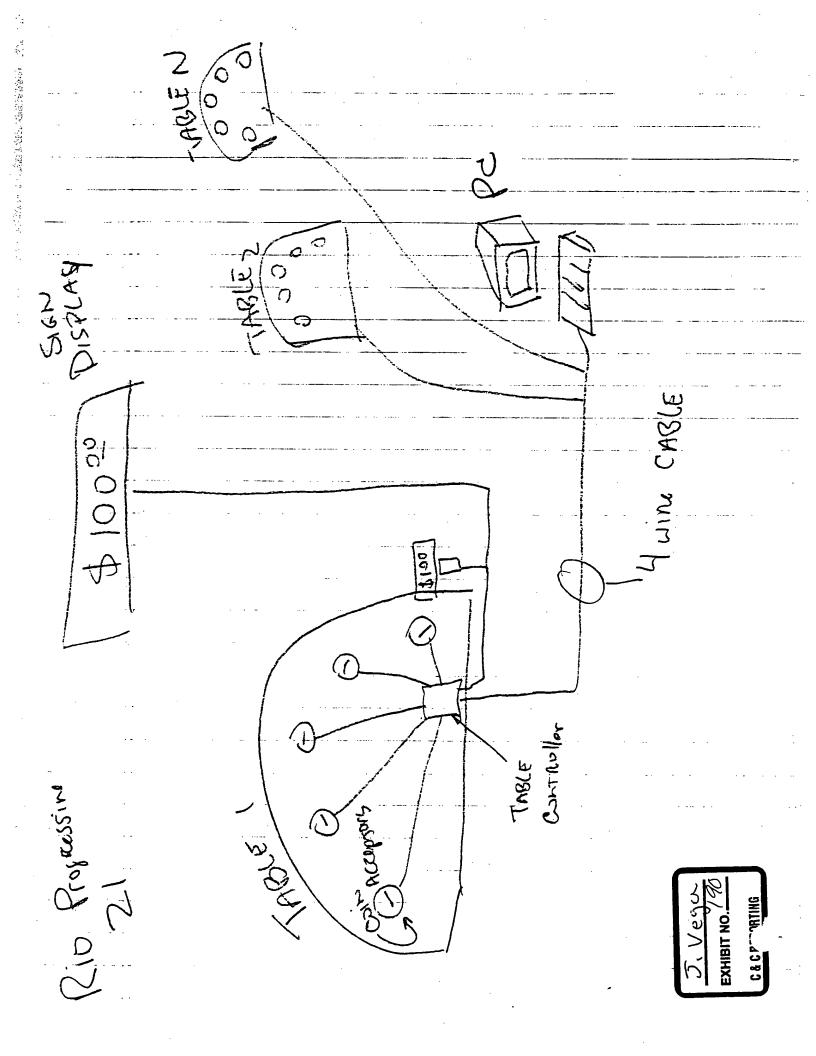
Upon consideration of the Safari deposition it is now my opinion that Mr. Safari's testimony itself is sufficient to invalidate claim 10 of the '882 patent in that claim 10, if not anticipated or obvious was at least "on sale" prior to October 12, 1993. It is also my opinion that if Claim 10 of the '882 patent is invalid then Claim 19 of the '882 patent and Claim 22 of the '817 patent are also invalid in that neither of these claims add patentably distinct limitations to the limitations expressed in claim 10.

Respectfully submitted,

Dated: September 29, 1999

Leroy A. Prohofsky

| 1 | Certificate of Service | | |
|----|---------------------------|--|--|
| 2 | I hereby certify that | at a copy of the SECOND SUPPLEMENT TO EXPERT WITNESS | |
| 3 | REPORTS OF LEROY A | . PROHOFSKY was served on the following persons: | |
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| 24 | Dated: September 30, 1999 | Maura III. Folley | |
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FAX TRANSMISSION

PAGES TO FOLLOW: 0

FAX NUMBER: 317 966 0754

August 18, 1993

TO: Mr. John F. Acres

FR: Jose

John:

The state of the s

Lyn Baxter from the RIO called this morning and asked that I fax him a written quotation for purchasing 16 more progressive table games. He needs this information for his files on their east side expansion. I thought that I would fax him the following:

Gaming Innovations is pleased to provide the following quotation for sixteen progressive table games.

16 Progressive Table Game Systems: \$7,500.00 each

TOTAL: \$120,000.00

Let me know if this is okay or if you would like something else. I am sure he will ask about a delivery schedule, any ideas?

Lyn also mentioned that he was not sure if he is authorized to pay our balance during a game trial period per a Gaming Control Board regulation. He has no problem issuing us a check right now but he asked if I knew about any such regulation. I told him I would check with you about any such regulation.

Let me know how you want me to handle these two issues. I hope you get some deserved rest and have some fun.



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517 766 0754

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RUSH TO: Gaming Innovations

FAX: 1 (503) 753-7524

FROM: AT Information

PAGES (INCLUDING THIS COVER): 3

OCKFIDENTIAL Attornayo E, 93 Only

Tuesday, January 19, 1993

HIGHLY CONFIDENTIAL

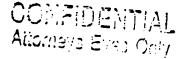
Caribbean Stud Progress Report

Tuesday Jan. 19, 11:30PM

The problem was definitely with the PC's COM2 port. As soon as I switched to COM1, everything worked well.

I was able to do some testing and uncovered a number of problems:

CONTROL BOX



- 1. No jackpot should be allowed if zero coins are played.
- 2. Turning a jackpot keyswitch when no jackpot button is pressed should have absolutely no effect. Current software seems to set a flag. When a jackpot button is later pressed, the control box automatically clears it. This is BAD!
- 3. Turning a key when a jackpot button is pressed should have a specific function depending upon the jackpot amount:

For the lowest three jackpots, the jackpot amount should display on the LCD and other displays as soon as "Other" Keyswitch is pressed (Please be sure that the Royal or Straight keyswitch has no effect). All coin acceptor lights should turn off and the control box should enter the "END" condition exactly as if the END key were pressed. A message showing the time stamped jackpot amount should also display.

For the upper two jackpots, a message should go to the computer showing jackpot amount won. The jackpot should not actually clear until the jackpot has been processed on the PC. Then the control box should return to the END condition.

4. This is a WIBNI (Wouldn't It Be Nice If). When I play seven coins on one game, the PC display sometimes shows two transactions: 5 coins and two coins. Would it be possible to hold off the coin reporting until all seven positions have had a chance to drop? This would appear more logical to casino workers.

DISPLAY

These are both WIBNIs.

- 1. Could one of the DIP switches be used to control odometer speed? One way would be the fast speed we have now when the display is far behind. The second setting would be at the slowest speed always. Perhaps two dip switches could be provided to allow 4 speed settings.
- 2. On jackpot display amounts that do not use the rull screen width, it would look good to center the jackpot amount if possible. A display of \$500.00 looks pretty lopsided right now.

PC

OCH FIDENTIAL

1. When a table fails to respond, a message must print saying something like? Only Table 1 OFF LINE 1/19/92 22:30.

The printed message does not repeat again, no matter how long the table is off line. It is OK if the message is printed again if power is lost (or program ended) and then restarted.

- 2. When the table returns, a message like: Table 1 ON LINE 1/19/92 23:14.
- 3. When I change system settings, a list is printed on exit along with my name. However, the description says Changes to System Setup. I first thought that the list showed only the CHANGES I had made. Please change the message to say System Settings Changed To: or some such.
- 4. Winner messages should show winning table number (as 1 to 32).
- 5. If I select Process Jackpots when there are no active jackpots, a message is printed like "John Acres entered Royal Flush". The name and address stuff doesn't print.

Could it be made so if I select Royal Flush and none is active, I get a message saying "No Active Royal Flush" instead of the password? Similar on Straight flush?

In all, I was pleased with what I've seen so far. Tomorrow, I want to test for jackpot processing accuracy, multiple tables, etc. I'll also try to turn off the PC at inopportune times and look for general ways to screw things up. While that's hard work for me, I know the casino people will show us new problems with ease. That's OK. As long as we get most of them now.

A big concern is static electricity. The loss of an LCD is ominous. Let's get the surge suppressers installed. I need some to install in these boxes already here too. Then we can see what problems remain.

We also need to create an install diskette that creates a subdirectory, copies all files to it and creates an AutoExec.Bat file to execute the program properly.

By the way, it does no good to zip files before sending them over Close-Up. The program has its own compression routine and actually EXPANDS a compressed file.

Finally, we need to start thinking about writing up assembly procedures and test software for control box, display, acceptors, etc.

While plenty of work remains, you've all done a good job. Jim on parts, Linda and Jim on assembly, Jo on paying the bills and, of course, Liz Jose and Dave on the SMOPs. (Small Matters of Programming)!

Thanks to all of you, this product will be very successful!

TEMONS. SHERRES

21

SBELL FRUIT-GUM

Illustrated history of automatic payout slot machines by Richard M. Bueschel

CDS0008042



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Production Associate: Elaine Bayliff

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by Richard M. Bueschel
Illustrated history of automatic payout slot machines

Published by:

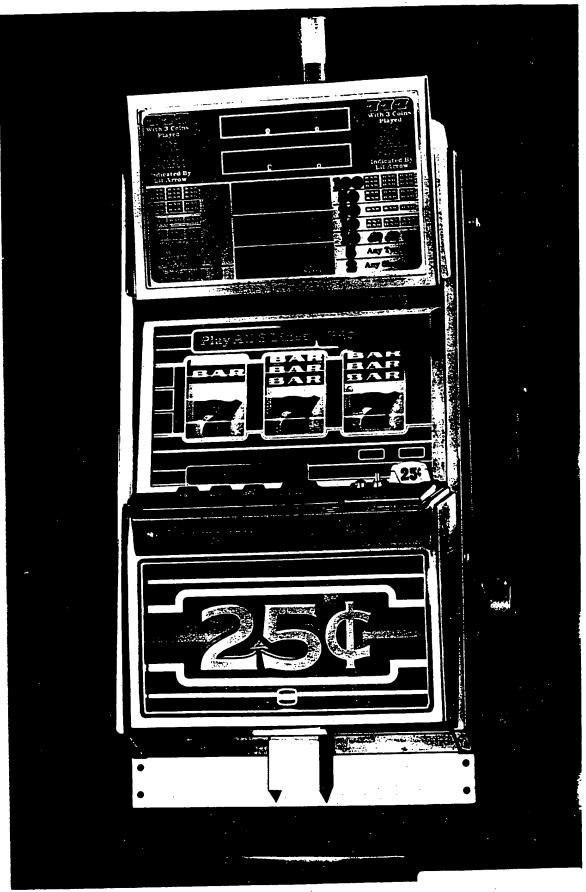


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The M-SLOT series of 1983 was the primary reel product of the IGT firm for 5 years, expanding its models and coverage to counter the models and variants offered by its competitors. This 3 LINE PLAY model also features a progressively built-up "Giant Jackpot."



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Introduction

History loves to be organized. Or at least people like to think it does. Think back over how many tomes about interesting historical phenomena you have read that logically start at point zero and climb up the ladder of time in decades. Years 1 through 10, 11 through 20, and so on. The only problem with that sort of organization is that history is nothing more than today transcribed for tomorrow. And it is rarely neat. Take the two World Wars that left such an impact on the century just ending. World War I had no respect for time, starting awkwardly in 1914 and ending in 1918. That means that in terms of history, as nice as the pleasant years of 1910, 1911, 1912 and 1913 might have been they were lost in the memory of the blood bath of war, and once that war was over the residual year of 1919 had no place to go and had to wait for 1920 for the logical categorization of time to take over once again. World War II was even more troublesome. Starting in 1939 for Europe, the summer of 1941 for what was then the Soviet Union and at the end of 1941 for the United States, it rambled on for anywhere from 3-3/4 to 6 years depending where you lived and when your country entered the battle arena. Ending at the close of summer in 1945, that left the years of 1946 through 1949 to fend for themselves and get lost to history. If you think this is off the mark, consider that these decades, in retrospect, are generally known as the "Fighting Forties" and the "Fabulous Fifties," an entirely unfair description by about half. Not wishing to get ourselves into the same trap of trying to tie neat knots around time and present a history with logical ten year starts and stops on the zeros, we took a look at slot machine history. The results were surprising, and immediately organized this book.

Miraculously, most of the significant inventions or events in slot machine history fall in the center of the traditional decades, making the middle years the obvious starting and stopping points for the next era. We'd do the history by decades alright, but we'd start in the middle when slot machines started, and take it in ten year bites with

the major events in our area of interest taking places right at the start or finish of our chosen time frames. If you think that is illogical, just take a look at the way the story of slot machines unfolds:

1885: The first primitive payout slots are made and introduced to a willing marketplace.

1895: San Franciscan Charles August Fey starts to make automatic payout counter wheel HORSE-SHOE AND STAR slot machines in the Gustav F. W. Schultze pattern. Daniel N. Schall in Chicago re-engineers the "Schultze Machine" for ease of production. The Chicago firm of Paul E. Berger Manufacturing Company makes their first electric floor machine. The landmark firm of Paupa & Hochriem is founded in Chicago. A revolution in slot machine marketing begins with the formation of Ogden & Company, the first mail order house selling direct to locations.

1905: Charlie Fey develops the 3-reel LIBERTY BELL, the Bell machine that will revolutionize slot machine play and enjoyment.

1915: The Mills Novelty Company OPERATOR BELL slot machine leaves its toe-footed cast iron case and switches to a lighter wooden cabinet with a larger cash box, creating the modern slot machine. Other producers soon followed suite.

1925: Here comes the jackpot! Aluminum takes over as the cabinet material of choice.

1935: Edwin A. Pace introduces the most revolutionary (and expensive!) slot machine to date: PACES RACES. The Watling ROL-A-TOR is introduced in February 1935, followed by the Jennings CHIEF in September.

1945: After four years of war, the slot machine industry returns with a raft of new models, only to face the anti-gambling prohibition of the post-war years. New introductions included the Pace

DELUXE, Mills BLACK CHERRY and Jennings CLUB CHIEF, all of which remained the basic classic mechanicals of their producing firms (with evolutionary and appearance changes, of course) until they were replaced by the Bally electromechanicals in the 1960s.

.955: Jennings slot machines finally overtake Mills machines in production and popularity. The hard wired Buckley CRISS CROSS POINTMAKER is introduced, paving the way for the forthcoming electronic machines.

1965: After a slow introduction the year before, the Bally MONEY HONEY and its rapidly growing family of electromechanical slot machines take over the market.

1975: Bally owns the business, and solid state machines slowly begin to replace the electromechanicals. Competition grows rapidly, both within the United States and throughout the world.

1985: IGT is formed out of a series of Si Redd companies, and proceeds to take over the lead position in slot machine production.

1995: WMS Industries, Inc. and Alliance Gaming Corp. both make substantial offers to acquire Bally Gaming, the second largest American slot machine maker. WMS prevails, realigning the slot machine industry in the U.S.

It was almost predetermined that we should start with the "5" years, and end our chunks of time in the middle of each decade in order to present a more rational history of slot machines than would have been the case if no organization had been present, or the artificial constraints of classical one-to-ten year decades had been followed. Our mid-decade orientation provides another benefit. It ends on time, closing out our history the very year this book is published. What could be neater!

So much for the organization of this book. Now let's consider content. Above all else, an attempt has been made to try to avoid favoritism. There are special slot machines that many people enjoy more than other machines for one reason or another, and as a result they earn an inordinate

share of editorial attention in most books. But that's not the way things were at the time. When new machines were presented to the marketplace all things were equal with the exception of the advertising and promotional push behind the machines. Slots that were later dubbed as dogs often started out as seeming to be the operator's answer to a location's prayers, while others that were literally snuck into the marketplace with little or no advertising or promotion became the shining stars of the future. Examples of these two diverse possibilities are the Jennings ELECTRO-VENDER of 1930 and the Fey LIBERTY BELL of 1906. Half a dozen different advertising flyers and brochures for the ELECTROVENDER have survived the years while the machine itself languishes in relative obscurity, while nary a piece of Fey LIBERTY BELL advertising or promotion has ever been found (and was most likely not produced), yet this is the most desirable collectible automatic payout slot machine in existence. Equally as misleading are the preferences of slot machine enthusiasts years after the operating lives of the machines they collect. For instance, at the time of their operation the Watling ROL-A-TOR and subsequent ROL-A-TOP slots were regarded as inexpensive second rate machines while many of the the electrical spinner consoles of the late 1930s were seen as the heavyweights of the business. Yet today a good ROL-A-TOP is worth three or four operating consoles, or ten or more if the console glasses are cracked or their faded and untraceable hard wires are clipped.

For that reason, the machines presented here are laid out just as they came out, with no weighted factors for faddishness or collectible desirability in mind. The literature reproduced has been presented with history in mind, not graphics, and was certainly not selected by machine popularity or current collectible value. This is archival history, pure and clear, and constitutes an analysis of vintage advertising as well as slot machines. Literature examples of just about every form of slot machine promotion from every era of machine history are represented, going back to the first advertising to appear in print up to the modern slots that equip the American casino and riverboat and international gambling palaces of today.

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displayed wouldn't match the actual result of play and a payout would not be made. It was the idea pioneered by Gamex Industries in 1975 with their revolutionary stepper slots. IGT engineers working under the direction of Logan Pease, who was in on the development of the Gamex machine, went to work on the problem soon after the introduction of their first M-SLOT reel-type machines, with prototypes of the new system S-SLOT machines put out on test in late 1985 and early 1986. The IGT system uses a random number generator built into the machine's computer chip which picks

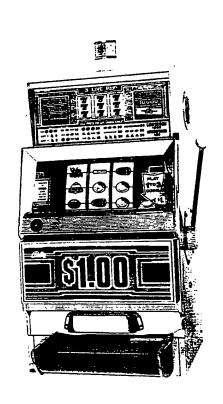
the symbol stop for the first reel, then the second, third and so forth, with each reel stop pick made separately and one at a time in turn while positioning the stepper driven reels. Realizing the tremendous advantage the stepper system machines had over the electronic slots in widespread use, IGT expanded their presentation to a full line of the revolutionary S-SLOT in 1987.

So did the aggressive and newly renamed Universal Distributing of Nevada, Inc., the new American branch of Universal Sales Company, Ltd. of Tokyo, who brought out a full line of their own stepper driven reel display slots in 1986. By now Universal also had offices in Las Vegas and had carved out a portion of the Nevada market for their own. They were soon joined by the Takasago Distributing Company, another Japanese producer of motor driven reel slots, who also opened offices in Las Vegas, with more Japanese producers yet to come.

he all new Bally 255-stop
video slot machine, now
available with gold cabinet, is a solid
gold hit. This machine is attracting
extensive player action ... more than
ever before!

The V2278 is the latest addition to our outstanding line of video slot machines. We have retained the handle action that the players love on our reel spinning slots, with all new audio and visual reel spinning effect. The latest application of amusing and unique high resolution graphics and a choice of many clever musical payout melodies, as well as different reel spinning sounds, ... increase player action.

The Bally video slot machines are available in models and programs similar to that which is available in the E2000™ series of player proven slots.



3-reel, 3-line play with 255 stops per reel make the Bally SOLID GOLD video slot live up to its image as a gold mine machine. Three 7s on the third line wins the progressive award, or a fixed award varying from 50,000 to a million coins.

Both Bally and IGT soon found that their major competitors on their own home turf were Japanese. It was the same throughout the world. The Japanese continue to earn market share in the United States, with Sigma Enterprises, Inc. of Tokyo, joining with the other firms that have brought their advanced and reliable machines to American shores. Perhaps it is only right that this Pacific Rim powerhouse walks away with a share of the American market, for it was Japan that finally recognized Jack Kilby, the creator of the semiconductor while working for Texas Instruments in 1958, and named him the Kyoto Prize laureate in advanced technology (Japan's equivalent of the Nobel Prize) in November, 1993, awarding him \$425,000. Kilby gave the world the semiconductor microchip that revolutionized electronics, and led to the modern slot machine.

Bally didn't catch up to the stepper slot revolution until 1987, when they introduced their large

- 304 ----

Chapter 12 1985-1995

The big change in slot machines came when payouts were no longer based on cut metal mechanical stops related to the symbol show, but were randomly generated by a chip with the physical reel symbols motor driven in place to reflect the selection of the "brain." It was the most significant change in reel-type machines since the Fey LIBERTY BELL. The IGT S-SLOT of 1987 was a pioneer example of the art.



symbol System 5000 series of motor driven reel-type machines, in 44-stop "Standard, 50-stop "Variable," and 64-stop "Virtual" models" covering many of the popular variants they had created in the past. By the 1990s the new Bally stepper slots had replaced their previous lines, and they were selling their 5000-Plus Series developed under the direction of Ray Heidel, VP engineering and chief designer. IGT upgraded their S-SLOT line to the second generation S-PLUS series which included "...an advanced microcomputer package to accommodate a variety of contemporary applications. Multi-level progressives. Creative link configurations. Enhanced audit trail functions. And exciting game software with proven player attraction."1 IGT made their play as "...the world leader in the design and manufacture of slot machines, video gaming equipment and proprietary

software for computerized wide-area game monitoring systems." To prove the point subsidiaries were opened throughout the casino playing world, including IGT (Australia) Pty., Limited, a manufacturing plant in Sydney, Australia, in the home market of one of their major competitors. After an agonizing effort to enter the booming Japanese gaming machine market, IGT finally received approval to deliver their first machines to Japan in April 1993, a token-payout Pachisuro (Pachislo) model called VEGAS GIRL.

Motor driven became the byword of the late 80s and 90s, with the format evolving into the high security slot machine of the modern era with its show based on a random number generator selecting a single number from a pool of numbers covering every possible combination on the machine, with the symbol show of the next play based on whatever



Once S: Redd stepped aside as the active manager of IGT, professional management took over. John J. "Bud" Russell joined IGT in 1986, and was named president and chief operating officer in February 1988.

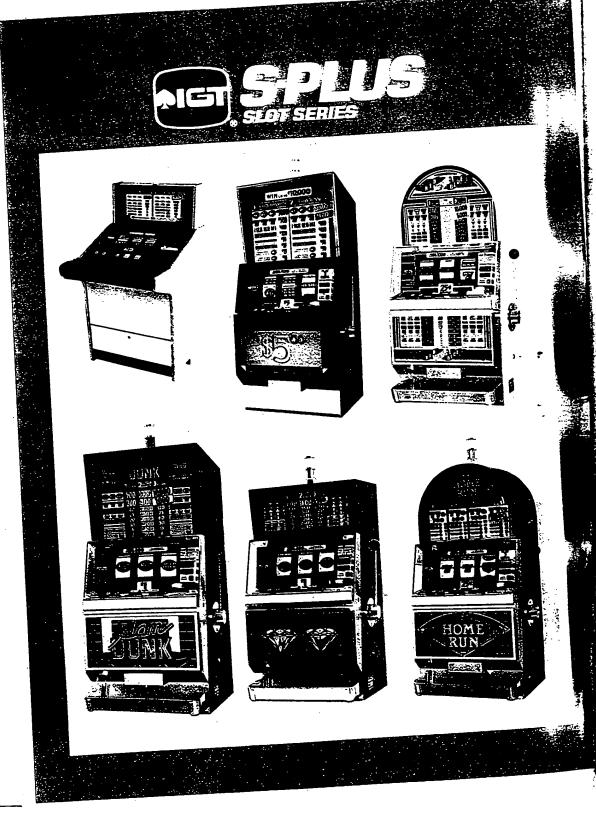
number has been pinpointed, making every combination possible by pure chance.

There were significant changes in the industry beyond the hardware and software. Just as the new S-SLOT machines were coming out, Si Redd stepped away from active management in IGT, sold his stock back to the company and an employee group, and remained with the firm as its Chairman of the Board Emeritus. When Bally's Gaming Equipment Division lost out on an Illinois State Lottery machine contract in 1988, the new Bally management thought long and hard about their options and the fact that the bulk of their business was in Nevada. The decision was made to move to Reno in 1989, which ultimately led to the establishment of an independent entity called Bally Gaming,

¹ "IGT S-PLUS Slot Series," sales brochure, IGT, Reno, Nevada, May 1992.

² "IGT Historical Overview: A Commitment to Quality," IGT, Reno, Nevada, October 22, 1992.

The second generation of IGT motor driven slot machines, The S-PLUS carries the S-SLOT into the 90s. IGT provides an EPROM library of multiplier, line and wild symbol games to specifically tailor the machine to its particular casino or riverboat operations.



S-PLUS Slot Series

The second generation of IGT's S-Slot, the S-Plus has all the appealing features available in this popular spinning-reel family. PLUS an advanced microcomputer package to accommodate a variety of contemporary applications. Multi-level progressives. Creative link configurations. Enhanced audit trail functions. And exciting game software with proven player attraction.

The S-Plus Slot delivers extraordinary performance. We've pioneered the latest IGT technological achievements into an ultra-secure machine with the classic slot look, a superior modular design and minimal maintenance needs. It's the new expression of our continuous commitment to provide you with the best slot machine in the world... and it's Made in America!

Introducing the S-Plus

The S-Plus Slot Series is an extension of IGT's versatile and high earning slot products. Several technological amenities inside its traditional cabinet make the S-Plus radically refined:

- Expanded high capacity 8K RAM supports a multiple variety of advanced features and options
- Two-board microprocessor system utilizing a mother board and a processor board
- E² module on mother board improves accounting integrity by retaining audit trail when the processor board is removed or CMOS is cleared
- Three communication channels on processor board to simultaneously support progressive capability, data collection system and auxiliary peripherals
- Partitioned S-Plus software system puts paytable on one chip and game features on the second chip allowing program updates without paytable changes
- · Four-level progressive award capability
- Hopper-paid lower level progressive jackpot capability on specific software
- Up to 32 digit imbedded progressive meter capability

- Separate input/outputs for bill acceptor and mechanical bell
- Improved sound quality with door-mounted speaker
- Door-open alarm, attract mode, stepper light sequencing and enhanced sound capability
- Coin handling for up to 50mm diameter tokens
- Imbedded numeric (seven segment) or alpha/numeric (dot matrix) digital display capability
- Compatible with the Electronic Data Technologies (EDT) Gaming Management Systems
- Accommodates internal or external EDT Player Tracking System card reader

The S-Plus represents the ultimate in low-cost flexibility. Due to its ability to operate with either the full complement of standard S-Slot programs (without mechanical bell or bill acceptor) or partitioned S-Plus software, you can seek the most player-friendly games for your market by experimenting with IGT's vast EPROM library—including the most popular multiplier, line and wild symbol games in existence. A typical game change merely requires the simple change of glass, chip and reel strips, which can be performed in minutes.

Engineered to provide slot players with quality entertainment while maximizing your profit potential, the S-Plus is today's most thorough definition of a state-of-the-art spinning reel machine.

As the world leader in gaming technology, IGT develops The Games People Play. And Play. And Play.

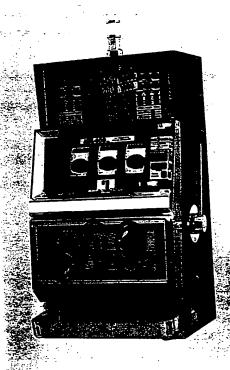
Our network of sales/service centers and exclusive distributors reaches around the world to make the ownership of our equipment a special experience. Beginning with a superior product, and continuing with superior attention to your needs and our services to you.

Find out more about the S-Plus Slot Series and our broad range of gaming machines by contacting your IGT account representative or distributor today.

Chapter 12 1985-1995

IGT S-PLUS slot series game changes usually only require glass, chip and reel strip substitutions and can often be accomplished in a matter of minutes.





220VAC .7 AMPS

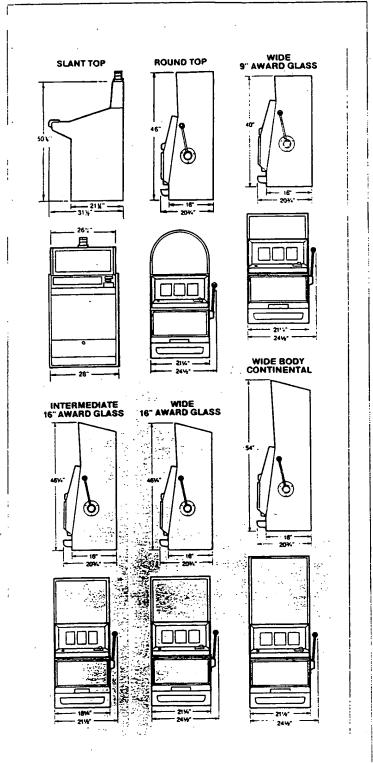
SPECIFICATIONS:

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pper On (Avg.)
Line Frequency: 50/60 Hz

SHIPPING INFORMATION

| | Weight Shipping Container Size |
|---------------------------------|--|
| Machine | Weight 190 lbs (85.5 kg) 54"x29"x25" (137.2cm x 73.7cm x 63.5cm) |
| lide Body, 16" Top Box | 190 lbs (85.5 kg) 54 x29 x29 (190 dcm z 63.5cm x 63.5cm) |
| stermediate Body, 9" Top Box | 190 lbs (85.5 kg) 47"x25"x25" (119.4cm z 63.5cm x 63.5cm) 185 lbs (83.25 kg) 40"x25"x25" (101.6cm x 63.5cm x 63.5cm) |
| ntermediate Body, Low Boy | 30 ab (5 m x 63.5cm) |
| Marke Body, Continental Top Box | 195 lbs (87.7 kg) 67"x29"x25" (170.00111x |



Inc. located in a new production facility in Las Vegas.

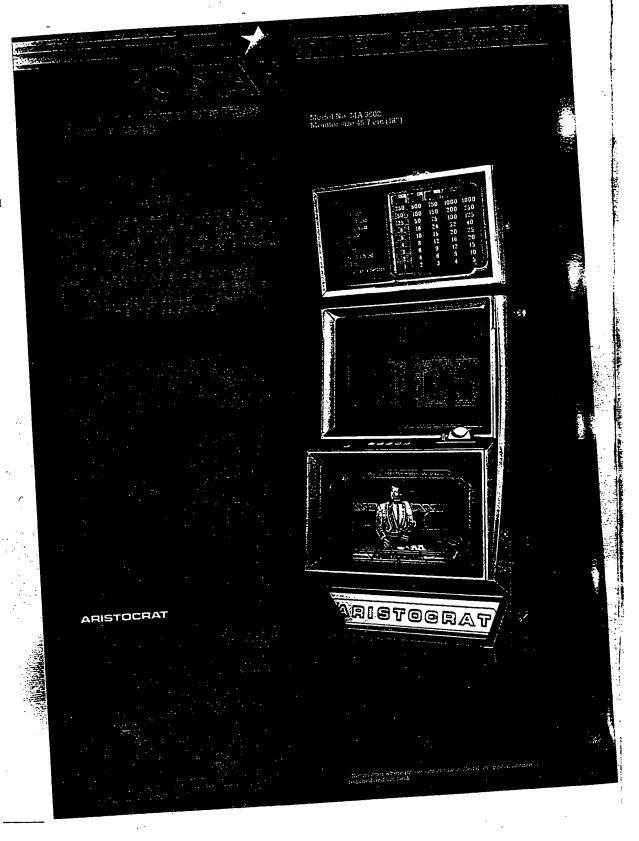
The road was even more rocky for other domestic producers. By 1987 Game Plan, Inc. was on a downhill spiral, finally closing its doors in the spring of 1988, their last product a converted motor drive version of their electronic slot which were sold out in New Jersey as token machines.3 Most of the other 70s and early 80s hopeful producers of slots were gone, while a few long termers still survived. Mills Jennings in Reno introduced new models of their wide reel STANDARD 700 at the end of 1986, and moved into new facilities in Reno two years later, surviving as a video poker game producer into the 90s. Games of Nevada, having weathered the storms of change and takeover under its still president and owner Mickey Wichinsky, rebounded as a significant specialty slot producer for the Nevada market. Filling in from the bottom was a whole new assortment of video, electronic, spinning reel and newer format payout slot machine producers arising out of the ashes of the past all over the country to meet the ever expanding needs of an exploding market as slot machine play once again



"Motor driven became the byword of the late 80s and 90s, with the format evolving into the high security slot machine of the modern era."

³ Telephone interview with Ed Cebula, former chief engineer, Game Plan, Inc., Chicago, Illinois, June 12, 1988.

The Ainsworth ARISTOCRAT MICROSTAR II video poker machines were introduced in 1987. They were among the first top display full size "real" card faces. Monitor is 18-inch, a gain over the standard IGT FORTUNE models.



became a highly visible and popular public amuse-

By the late 80s and early 90s it was plain to see that slot machines were returning to the public sector. The beginnings of change came about when numerous native American indian councils determined that their reservations were separate legal entities, allowing them to open Las Vegas style casinos protected by the Federal Indian Gaming Regulatory Act of October 1988, provided the activity is not against their state law. The result is a concentration of indian casinos in Wisconsin and Minnesota, and in far away Connecticut, with other states, including Michigan and California, following. Cruise ships have long been a haven for slot machine play, with more and more people, including families with children, taking their vacation tours in international waters. Then casino play came inland, but not on land. Once it was determined that riverboats exuded a charm of the past that was hardly threatening, riverboat gambling (and the new tax base it provided) became a reality. The first boats set sail from the lowa side of the Mississippi River on April 1, 1991. It wasn't until later in the year that Illinois boats got into action, after which they moved upstate river by river, getting closer to Chicago with each step. Soon Chicago was vying for its own water or even land based casinos, and is likely to get them sometime in the later 90s. Downriver, the state of Mississippi legalized riverboat gambling, after which Louisiana approved riverboat gambling in 1991, and casinos in 1992. Indiana followed, with its own boats in operation in 1994. The effort wasn't always successful, with Dubuque, Iowa's early riverboat casino, steaming away for warmer waters after a little over a year because there just wasn't enough action where it was docked. But this was an exception. Other states, and waterways, continue to take the plunge. Some states have opted for allowing slot play under controlled circumstances. Maryland allows them in fraternal clubs, while Colorado and South Dakota allow casino operations in a few designated tourist attraction towns. It is estimated that by the turn of the century many, if not most, states will permit slot machine

play in one form or another. The trend is evident. By the end of 1993, "America was home to 23 floating casinos and 65 casinos on indian reservations." Yet, while all this is going on, Las Vegas continues to grow, adding enormous tourist attractions and theme hotels in addition to new gambling halls to its offerings. There is no end in sight.

The diversification of slot machine gambling, and recognition of the American market as the jewel in the crown of casino play, attracts an ever widening supplier base. You cannot help but wonder if there is enough room to support the burgeoning business of slots, yet year in and year out new producers come into the field, selling in the United states and elsewhere throughout a world that embraced the basic spinning reel machine that the legendary Charlie Fey created at the beginning of the 20th century. The surprising strength of offshore machine makers seems only to grow, not slow. The Australian invasion of the American and world market has become an accepted fact, with Ainsworth Aristocrat changing its name once again, this time ignoring its dental roots and going for the promotional effect of its primary lines, becoming Aristocrat Leisure Industries, selling its video and reel spinning machines in 50 countries, including a major effort in the cruise ship, Caribbean casinos, American indian reservations and the new riverboat gambling markets, not to mention Nevada, Atlantic City and Colorado. It has been joined by yet another Australian maker, Milwell Pty. Ltd. of Sydney, just starting out with a line of video slots for the local market.

British and European makers and revampers are continually expanding the worldwide markets for their products. Casino Games in Surrey, England; Cirsa in Barcelona, Spain; Fortuna Automaten b.v. in Nieuwegain, Holland, a reconditioner of Bally E-1000 and E-2000 Series machines, to name a few, seem to suggest that the Bally look of the 60s will continue to be the design norm of the spinning reel machines of the 90s, although other producers are starting to contest this conventional wisdom. A surprising addition to this international club is Th. Bergmann Automaten GmbH & Company of



"You cannot help but wonder if there is enough room to support the burgeoning business of slots, yet year in and year out new producers come into the field, selling in the United states, and elsewhere throughout a world that embraced the basic spinning reel machine that the legendary Charlie Fey created at the beginning of the 20th century."

^{4 &}quot;Year In Review. Missing The (River) Boat," RePlay Magazine, January 1994.

A century after Charlie Fey was making coin machines in San Francisco, his name still has the power to command attention and denote rechnological superiority. The headline on this Bonansa Enterprises tlyer for SUPER DICE states "Revolutionary game since Charly Fey's invention," a slight corruption of Fev's name and accomplishment. Note the U.S. patent protection for this Japanese machine at lower right. The actual patent application is dated September 6. 1988.





Signing Colorado's enlightened slot machine collectible act into law in March 1994 is governor Roy Romer, joined by representative Michelle Lawrence, sponsor of the bill. Witnesses are Rosanna and Bill Harris of Royal Bell, Ltd., Denver, proponents of the action. The law allows home use and collectibility of retired technology slot machines produced prior to 1984.

Rellingen (Hamburg), Germany, an old line coin machine company dating back to the early 1900s. The leading German pinball producer of the 1930s, returning to the field in the 50s, adding automatic payout consoles and wall machines, the firm introduced its reel spinning slots to the American market in 1988 under its Bergman USA, Inc. marketing arm, gaining Nevada licensing in 1989.

Countering this growth of offshore competition and the commanding position of IGT is the coming realignment of American slot machine production and marketing capability, and the possible return to full line coin machine capability in the manner of the 30s, something that had been lost years earlier with the demise of Mills Industries and the breakupof Bally Corporation diversification. This times it wasn't Bally that led the way. It was just the opposite, with Bally Gaming International Inc. being courted by WMS Industries Inc., the parent company of Williams Electronics, the latter an expanding coin machine producer that started out as a pinball revamper and original game maker in the mid-

045)651-6242

1940s. Over the years Williams, a wholly owned subsidiary of WMS Industries, Inc., became a major producer of pinballs, having a 50 to 60 percent share of the world market by the 1990s. In 1991 Williams acquired the Bally Pinball Division and comfortably assimilated the design, production and marketing teams while retaining the Bally name as a marketing mark. As WMS Industries Inc. reached deeper into the coin-op pool, producing pinball, video arcade games, redemption games and video poker machines, they edged ever closer to the payout slot. The move was made in the spring of 1994 with the formation of the wholly owned subsidiary WMS Gaming Inc. and the introduction of a round top "cathedral" style cabinet line of casino button stepper reel slots and button video slant tops, respectively known as the PLATINUM FXTM and QUANTUM XLTM lines. A year later an opportunity to increase market share presented itself. On April 18, 1995 an agreement was reached whereby Bally Gaming would be acquired by WMS Industries Inc. for shares of

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5. Defendants' lawyers also informed me that in the mid 1980's the Lady The boundary of the second of the second of the second of the second of the second of the second of the second Although I do not have specific knowledge of the Lady Luck game, I do know ... that these types of games have been widely used in the gaming inductor fire. years. My understanding is that the Lady Luck had a progressive black jack game which had several video terminals which allowed several players to ... play at one time. Each terminal had coin acceptors which would accept up to eight quarters. Unly by inserting the eight quarter would the player he eligible for the progressive jackpet.

The same of the sa

equipment hisiness, the Jedy Juck garous and barm costainly bad come trace. ... of mechanism that indicated that each player had incorred a suin interior .. game's coin slot, some type of lock out switch which would prevent the players from inserting additional coins and resetting the machine -after wouth hand theen played: "Time, the cally difference, between the hady luck progressive viden gamerad the progressivetable yames at the Riv is that the Riv yames involved inventator master master ---the-dards instead of the computer. Of course the computer in the Lady Luck game was merely simulating a live dealer to begin with.

Derell M. Johns

SUBSCRIBED AMB-SWORM to before-mo-this . 2 -day of-December .- 1993

... Notary Public

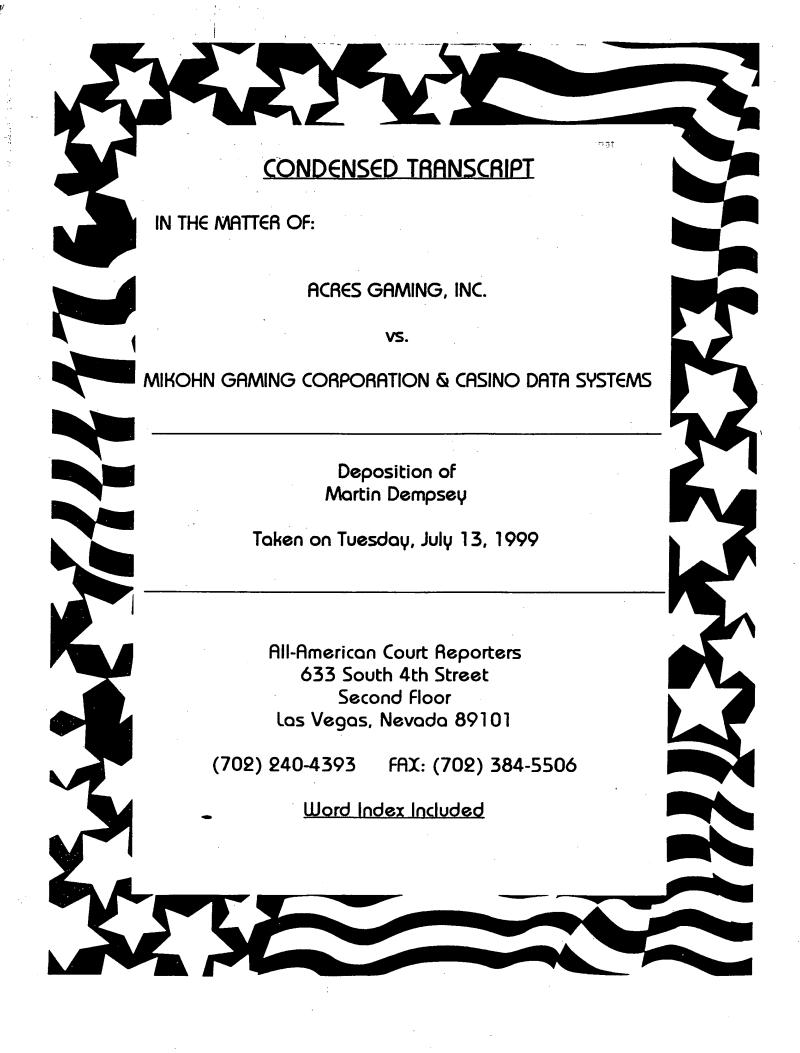
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| ١. | Page 5 | Ι. | Page | 7 |
| 1. | Whereupon, | - 1 ' | A. Yes. | |
| 2 | · · · · · · · · · · · · · · · · · · · | 1 7 | Q. And it had a list of documents that | |
| | having been first duly sworn to testify to the | 3 | you were requested to bring. | |
| | truth, the whole truth and nothing but the truth, | 4 | Did you search your files for the | |
| 5 | was examined and testified as follows: | 5 | documents listed in that schedule? | |
| 6 | | 6 | | |
| 7 | CONFIDENTIAL AND BUSINESS CONFIDENTIAL | 7 | Ç | |
| 8 | MATERIAL.) | 8 | know, maybe a half-inch stack of documents? | |
| 9 | | 9 | · · · · · · · · · · · · · · · · · · · | |
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| 12 | F 3, | 12 | • | |
| 1 | name, and spell your last name for the record. | 1 | information? | |
| 14 | | 14 | | |
| ı | spelled D-e-m-p-s-e-y. | 15 | · - , · · · · · · · · · · · · · · · | |
| 16 | | ì | lines? | |
| 17 | | 17 | | |
| ı | Nevada 89128. | 18 | | |
| 19 | MR. DOWELL: I have marked | 1 | today, Mr. Dempsey? | ĺ |
| ı | Exhibit 305. | 20 | • | |
| 21 | I am going to mark as Exhibit 305 the | 21 | | |
| 1 | notice for the deposition and also the subpoena | 22 | | ļ |
| | that was, I believe, delivered to you. | 23 | • | |
| 24 | (Exhibit 305 was marked for | 24 | Ç. 22 200 P.—Pesse 22 22 22 22 22 23, | |
| 25 | identification.) | 25 | you are not represented? | ╝ |
| | Page 6 | | Page 8 | 3 |
| 1 | BY MR. DOWELL: | 1 | A. I will represent myself for this | - |
| 2 | Q. You probably haven't seen the first | 2 | deposition. | ١ |
| | couple pages, which is the notice that we | 3 | If I think I need, I will give her a | |
| | distribute among the lawyers, but if you could take | 4 | call and get her down here. | ı |
| | a look at the subpoena attached to that, and tell | 5 | Q. Fair enough. | ١ |
| _ | me if you recognize it. | 6 | Could you describe your educational | 1 |
| 7 | A. Well, I certainly recognize the third | 1 | background. | ١ |
| | page and the fifth and sixth pages, which I was | 8 | A. Certainly. I graduated in 1980 from | ١ |
| • | served. | | the Massachusetts Maritime Academy with a BSME. | 1 |
| 10 | Q. The third page is the it says at | | I was fifth in my class. I worked mostly overseas | 1 |
| | the top "United States District Court Subpoena In A Civil Case"? | , | on oil rigs, gas tankers, and various other | ١ |
| 13 | A. That's correct. | | facilities that used process control technology and | İ |
| 13 | A. That's correct. | 113 | computers. | |
| 1.4 | O And the fifth and sixth mages are the | · . | In the annual of that annual annual of the terms of the t | ۱ |
| 14 | Q. And the fifth and sixth pages are the | 14 | In the course of that employment, I | |
| 15 | Schedule A? | 14 15 | went to other schools, such as the Cryogenic School | |
| 15 16 | Schedule A? A. Yes. | 14 15 16 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls | |
| 15 16 17 | Schedule A? A. Yes. Q. You also noted that we had | 14 15 16 17 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, | |
| 15 16 17 18 | Schedule A? A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your | 14 15 16 17 18 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. | |
| 15 16 17 18 19 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that | 14 15 16 17 18 19 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of | |
| 15 16 17 18 19 20 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that at this time. So you will receive that. I just | 14 15 16 17 18 19 20 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of New Hampshire, enrolled in a Ph.D. program. And I | |
| 15 16 17 18 19 20 21 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that at this time. So you will receive that. I just want to make a note of that for the record. | 14 15 16 17 18 19 20 21 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of New Hampshire, enrolled in a Ph.D. program. And I finished all my courses but have not yet submitted | |
| 15 16 17 18 19 20 21 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that at this time. So you will receive that. I just want to make a note of that for the record. A. Thank you. | 14 15 16 17 18 19 20 21 22 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of New Hampshire, enrolled in a Ph.D. program. And I finished all my courses but have not yet submitted a thesis, and if I don't soon, I will be out. | |
| 15 16 17 18 19 20 21 22 23 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that at this time. So you will receive that. I just want to make a note of that for the record. A. Thank you. Q. Now, attached to the subpoena, what | 14 15 16 17 18 19 20 21 22 23 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of New Hampshire, enrolled in a Ph.D. program. And I finished all my courses but have not yet submitted a thesis, and if I don't soon, I will be out. I believe they give you eight years. I'm very | |
| 15 16 17 18 19 20 21 22 23 | A. Yes. Q. You also noted that we had inadvertently failed to provide the check for your fees and mileage, and we are currently getting that at this time. So you will receive that. I just want to make a note of that for the record. A. Thank you. Q. Now, attached to the subpoena, what you refer to as pages 5 and 6, is Schedule A. | 14 15 16 17 18 19 20 21 22 23 | went to other schools, such as the Cryogenic School in Baltimore, which deals with handling check calls that are cryogenic, which is below 250 degrees, such as liquefied natural gas. Later, I went to University of New Hampshire, enrolled in a Ph.D. program. And I finished all my courses but have not yet submitted a thesis, and if I don't soon, I will be out. | |

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| | i. | Page 9 | Ί. | A anim this is a sum of fact changing | Page 1 |
| | 1 | The experiences that you mentioned in | | Again, this is a very fast changing | |
| | | cryogenics, those occurred after your was that | 1 1 | 2 industry, and so, anything you learn five years | |
| | | your undergraduate degree, then, from the |] | 3 ago, you know, in some ways is dated. | |
| ļ | | Massachusetts Maritime Academy? | 1 | 70, 000 0000 0000 0000 00000 00000 | |
| 1 | 5 | , | | theories you learn still come in handy. | |
| 1 | | | 6 | 4 e.e.) 0 | |
| | 7 | Q. So do you have a Master's? | 7 | , | |
| - | 8 | A. No. Actually, at the University of | 8 | | |
| 1 | | New Hampshire, unlike some schools, you can either | 9 | Q . o y o y o y o.y o.y o.y o.y o.y o.y o.y o.y o.y o.y | |
| - 1 | | go into the Master's program for the Ph.D. | 10 | | - |
| | | program. And no matter how far you get down the | 11 | C | |
| - 1 | | Ph.D. program, you don't just get a Master's. You | | for that company? | |
| - 1 | | have to choose to do that separately if you want. | 13 | | |
| - 1 | 14 | Q. You have to go all the way, then? | | various plants and ships. | |
| - 1 | 15 | A. Uh-huh. | 15 | • | |
| - 1 | 16 | Q. The BSME that you received from | 16 | | |
| - 1 | | Massachusetts Maritime Academy, is that a Bachelor | 1 | Avenue in New York City. | |
| - 1 | | of Science in mechanical engineering? | 18 | ,,,, | |
| - 1 | 19 | A. It's actually marine engineering, but | i | the Far East. | |
| | | it's very similar. | 20 | (,) , | |
| 1 | 21 | Q. Could you describe what marine | 21 | | |
| - 1 | | engineering is? | 22 | •• • • • | |
| - 1 | 23 | A. Marine engineering is mechanical | 23 | | |
| - 1 | | engineering but has additional chemical and | 24 | | |
| 12 | 25 | computer components. | 25 | Q. And what did you do after that? | |
| | | Page 10 | | | Page 12 |
| | l | Q. Is that directed to a particular | 1 | A. In 1986, I had enough of spending | |
| | 2 | industry? | 2 | half my time overseas and took a year off and | |
| | 3 | A. Basically, you know, it historically | 3 | worked on a horse farm. | |
| | | was ships. But today, it's basically power plants, | 4 | Q. Where was that? | |
| | 5 | oil, as well as, you know, marine applications. | 5 | A. In Woodstock, Vermont. | |
| | 6 | Q. What are the computer-related | 6 | Q. Where is your hometown? | |
| | 7 | components of that educational program? | 7 | A. I was born in Pennsylvania, but about | |
| | 8 | A. Well, while it's quite dated, given | 8 | high school, my parents moved to Massachusetts | i. |
| | 9 ' | that my degree was in 1980, I worked on CDC auto | 9 | Before I moved out to Nevada, I lived | |
| | | cyber mainframes, FORTRAN. Heavy emphasis in | 10 | in New Hampshire. | |
| | | | 11 | Q. What did you do after working on a | |
| 1 | .2 | languages. | 12 | horse farm? | |
| 1 | 13 | · | 13 | A. I went and took a job for White | |
| l | 4 1 | | | Mountain Survey Company doing civil engineeri | ng and |
| | 15 | | ł | CAD in computers, and I worked for them | |
| 1 | 6 : | • | | approximately three years. | |
| - 1 | | | 17 | Q. Did you have a title or position in | |
| | 8 | | | that job? | |
| l _i | 9 1 | | 19 | A. I don't actually recall. Certainly, | |
| | | | | I had a title, but probably, you could say MIS | |
| 2 | | | | manager or something like that. | |
| | | | | | |

Q. What type of survey work did you do?

A. They were -- generally had a large,

24 nationwide civil engineering practice where they 25 would lay out planned communities, like Summerlin

Q. Is the Ph.D. program or the degree

23 you are pursuing related to the computer-related

A. You can certainly say it helps.

24 work that you did for those companies?

22

10

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Page 13

1 in scope, as well as a local survey firm where they
2 would survey smaller parcels.

Q. I am not familiar with Summerlin.

4 What is that?

A. Oh, right. Of course.

Summerlin is a planned community in

7 Las Vegas that has approximately 5,000 homes in it,

8 supermarkets, shopping malls. And the entire

9 project was designed from the ground up before

10 anything was built as one unit.

11 Q. How long did you work for that 12 company?

13 A. Well, I worked for them full time

14 approximately three years, at which time I started

15 doing consulting, and they remained my largest

16 client, but I would work for other civil

17 engineering firms and other engineering firms as

18 well.

19 Q. How would you describe the consulting 20 work that you did, work for them and for others?

A. I did an awful lot of custom

22 programming, converting data from one sort of CAD

23 format to another. I wrote various programs

24 interfacing to data collection devices like the

25 autolites.

Page 14

Page 16

Q. What is an autolite?

2 A. Theolite.

3 Q. What is that?

A. It is the device that you see

5 surveyors using commonly where you will see them

6 looking down the street to a guy with a rod, and

7 the device is used to measure the distance and

O anala hasanan sanan and

8 angle between two points.

Q. That is controlled by software?

A. The ancient ones, a surveyor used a

11 pen and paper to write down, record the

12 measurements, and about the time that I started

13 doing this, they put a computer in that would

14 automatically record all of the readings. And

15 then, these readings would then have to be imported

16 into a CAD program to draw a picture of what the

17 land actually looked like.

Q. And so, you were responsible for the

19 programming that went into that computer controlled

20 or the translation, I guess, from the optical

21 device to the 3D generating software?

A. Yes.

22

25

23 Q. I think you said you were doing some

24 consulting work in that area for about three years?

A. Actually, I continued my consulting

1 branched out and worked for, you know, a wide

1 work while I went to University of New Hampshire,

Q. I guess it takes us up to about 1989,

Q. And then, you continued to do some

consulting work while you were going to school?

Q. And then, when did you move out

A. Technically, it would be Henderson,

Q. So from approximately 1989 to July of

But I moved out July of 1996.

19 '96, you were doing consulting work and going to

Q. And so, during that entire time, you

were working in this, I guess, civil engineering,

A. Well, when I did consulting, I also

20 school at the University of New Hampshire?

A. Overlapping periods, but yes.

2 and continued to do it until I got a divorce and

5 when you went back to the University of

6 New Hampshire; is that correct?

A. Had to pay the bills.

O. - from Boston?

24 CAD type programming work?

12 to -- was it Las Vegas, you moved out --

A. Roughly.

A. Yes.

16 which is a suburb.

3 moved out here, at which point I got a job at CDS.

2 variety of companies. For instance, mail order

3 houses. Again, mostly database translation.

4 Basically, what anyone would pay me

5 for.

In addition, I did work with voice

7 systems, such as the phone response systems that

8 you commonly see.

I did work for the marine science and

10 engineering lab on underwater robotics.

11 I worked at detecting fraud in

12 various kinds of accounting systems.

I mean, over the course of probably

14 seven or eight years, I may have had a hundred

15 clients.

16 Q. During that time, can you describe,

17 in general terms, what your specialty was.

18 Although I understand you were in a lot of

19 different fields, was there a particular area of

20 expertise that you had that they would call you in

21 for?

22

A. Well, actually, all of my life, I

23 have done very well being a generalist, and for

24 instance, at one of the tasks I had at CDS is

25 hardware design, which is sort of the lowest level

22

1 that you can go.

13

20

21

Page 19

Page 20

Page 17

The highest level task is, say,

3 artificial intelligence, and given my mechanical

4 background, I can do everything in between.

And there's an awful lot of places

6 where having a broader skill set comes in very 7 handy.

So generally, I would be called in 9 when you had a problem that spanned a couple 10 disciplines.

Q. Did all of them involve computer 12 programming, at least to some degree?

A. That's a pretty safe bet.

Q. How did you go about obtaining the 14

15 different consulting jobs or work that you - the

16 variety of work that you obtained?

A. After the first year, where I did a 17

18 small amount of advertising, everything was word of 19 mouth, and I had plenty of business.

Q. Did you have an office that you --

A. The first year, I had an office.

And stupidly, it was 40 miles from my 22

23 house, and I decided I didn't need the commute or

24 paying the rent. And from then on, I worked out of 25 my house.

Q. Would you typically work onsite at 2 companies or your clients when you would do work 3 for them?

A. It would depend on the job.

Hardware design or something that had 6 a large system that couldn't be moved, I would 7 obviously go onsite.

Other things that I could do out of 9 my house, I would.

10 Q. What is hardware design? Could you 11 describe that for me?

12 A. In most computers, the computer 13 itself is composed of printed circuit boards. And

14 hardware design is the actual choosing which

15 components would be put on the circuit board and

16 laying out the interconnections between them so

17 that you can then produce hardware.

18 Q. After that design work is done, what

19 do you do with it?

20 A. Well, the next step up from hardware 21 is something called firmware, which is programming

22 that goes into usually E-PROM chips that provide 23 the low-level drivers and the low-level

24 intelligence of the system.

Q. That firmware is programmed and

1 burned into chips?

A. Yes. 2

Q. Is there a next step up? 3

A. The next step up would be software,

5 and, you know, operating systems and applications

6 that go on top of that.

Q. And so, you had experience during

8 this time period of '89 to '96 in the whole gamut

or range there in programming?

A. Yes.

Q. When you would design hardware, is 11

12 that given to a circuit board manufacturer, then,

13 to make based on your specification or your design?

A. Either by the company that I worked

15 for or an outside firm, yes.

Q. How about firmware. I am trying to 17 get an understanding of how you fit into -- what

18 your specialty is.

With firmware, is that something you 19 20 just design, and then, someone else does the manual

21 programming work, or is that what you do yourself?

A. It varies to a large degree.

If you have something like a laptop 23 24 that is going to have a large run of 50,000 units

25 or more, commonly, the chip, the firmware is

Page 18

1 actually burned into the chips at the assembly 2 line.

If you have a small run, it can be,

you know, loaded at, you know, the point of use or

5 down the road.

Q. During this period from '89 to '96, 7 did you do any work in the gaming industry?

A. No, I did not.

Q. Did you do any work on controlling

10 large numbers of devices, like similar to slot

11 machines, the work you did later, anything along

12 those lines?

22

A. Well, again, if you look at, say, an

14 oil plant, they would have hundreds or thousands of

15 various intelligent components out in the field,

16 valves, motors, various kinds of pumps and such.

17 And the data acquisition and control

18 of that is pretty similar to slot machines.

19 In fact, most of them historically

20 have even used the same 485 network that is

21 commonly used by slot machines.

Q. What is a 485 network?

23 A. There's various forms of computer

24 networks that are used for various purposes, and

25 one of which is referred to as RS 485. And this is

8

9

14

Page 24

Page 21

1 a low-speed, noise-immune, long-distance network

- 2 that is designed for industrial control.
- Q. Low-speed, noise-immune system for 4 industrial control?
- A. (No audible response.)
- Q. What is the significance of it being 7 low speed?
- A. Well, everything is a trade-off.
- 9 Everything else being equal, higher speed is

10 better.

- But to make it be able to survive, 11
- 12 say, in an oil facility where there is very large
- 13 electrical motors starting and stopping or in a
- 14 casino, where, again, there's a wide variety of
- 15 equipment, to get that noise immuneness, one of the
- 16 things you trade off is speed.
- 17 And it turns out that if you're
- 18 turning on a valve or controlling a slot machine,
- 19 high speed is not very important to you.
- 20 Q. What type of system would the speed
- 21 be more critical? Like an automobile?
- A. Most commonly, say, web browsing
- 23 where, of course, if it's low band width or low
- 24 speed, the users tend to wait a long time to see
- 25 pictures come in.

- Q. But it is not as critical if you
- 2 don't get your thousand dollars win from the slot
- 3 machine in a nanosecond or something?
- A. Well, a thousand-dollar win from a
- 5 slot machine is actually a very small message, so
- 6 you don't need much speed to get it across the
- 7 floor.
- Q. You mentioned oil plants or something
- 9 along those lines as an example of when you had
- 10 previously done these low-speed, noise-immune
- 11 systems?

13

22

- A. Yes. 12
 - Q. Who did you do that work for?
- A. Basically, Energy Transportation, and
- 15 they had a very large contract with Castrol, which
- 16 is a British oil company, or various other firms.
- 17 Q. Any other firms where you gained
- 18 experience in those types of systems, with
- 19 low-speed, noise-immune data transfers in
- 20 connection with a large number of computer control
- 21 components?
 - A. Probably a smaller number of
- 23 components, but certainly, even at the marine
- 24 science and engineering lab, they had multiple
- 25 autonomous underwater robots. And, again, this was

- 1 low speed, very noise-immune communications given
 - 2 that it was run underwater on sonar.
 - O. Any others?
 - A. I can't recall any at this time.
 - Q. In your experiences prior to July of
 - 6 '96, had you had any -- had you done any work
 - 7 with card readers?
 - A. Magnetic card readers?
 - Q. Any type of card readers.
 - 10 A. I had used bar codes before, but not
 - 11 magnetic card readers.
 - 12 Q. Bar codes are like you see in a
 - 13 supermarket where you --
 - A. One method of optically encoding a
 - 15 card.
 - 16 Q. So that experience in bar codes
 - 17 involved optically recognizing data?
 - 18 A. Yes.
 - 19 Q. What is the similarity of that to
 - 20 magnetic card readers?
 - 21 A. Well, as soon as you get one step up
 - 22 from the hardware, everything is the same. It
 - 23 doesn't particularly matter too much to the
 - 24 software or any other part of a system what format
 - 25 a card is, you know, whether it be optical or

Page 22

- 1 magnetic or what sort of magnetic card; or now,
- 2 they also have something called smart cards, which
- 3 are even more intelligent.
- But basically, it's putting a number,
- 5 assigning a number or a bunch of numbers to a
- 6 device and reading it.
- 7 Q. After July of '96, did you acquire
- 8 experience with magnetic card readers?
- A. CDS certainly used optical and
- 10 magnetic card readers.
- I was certainly involved with the 11
- 12 firmware for that.
- Q. That was the first time that you had
- 14 been involved with any of the programming of
- 15 firmware for magnetic card readers, when you were
- 16 at CDS?

22

- 17 A. That's correct.
- Q. Going back to the distributed 18
- 19 industrial control systems that we were talking
- 20 about a second ago, in any of the systems, did they
- 21 have a host computer?
 - A. Oh, yes.
- 23 Q. Is that a necessary element of a
- 24 distributed system?
 - A. Well, it's not technically a

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Page 25

1 necessary element of a truly distributed system, 2 but it's a very common way to run most systems.

- Q. Why is that?
- A. It turns out that it's easier to
- 5 centralize stuff in one place than it is to do
- 6 pier-to-pier without a host.
 - It's nice to be able to take all the
- 8 information in a system and put it on one computer
- 9 where it's easy to work on.
- So for instance, the control room at
- 11 an oil plant would have a host computer.
- 12 Q. What are the advantages of having all
- 13 the information in a system on one computer where
- 14 it is easy to work on?
- A. Communications is hard. Anytime you
- 16 use communications, you can have communication
- 17 links break.
- So by centralizing the information,
- 19 there's a lot of things you don't have to worry
- 20 about.
- 21 Q. Such as?
- 22 A. For instance, failing or having
- 23 timing problems reading information.
- Q. When you have this host computer, can
- 25 the operator then control, typically, the entire
- Page 26

Page 28

- 1 system from that computer?
 - A. Yes. Yes. That's the goal.
- Q. In a distributed system such as this,
- 4 does each control device typically have a unique
- 5 address?

2

- A. There needs to be, of course, a way
- 7 of specifying it.
- For instance, in an oil system where
- 9 you have a hundred valves, and you say, "open," you
- 10 need to be able to specify by an address which one
- 11 or ones.

22

- 12 Q. So each valve, then, will have a
- 13 unique identifier that the computer will know and
- 14 be able to access and control?
- 15 A. Yes. A valve number or a location.
- 16 Again, in some ways similar to slot machines for
- 17 the same purpose.
- 18 Q. How long have distributed control
- 19 systems with a host computer, multiple devices with
- 20 a unique address like this, in general terms, how
- 21 long has that type of technology been around?
 - A. Certainly, the earliest nuclear
- 23 reactors used exactly the same thing you're
- 24 discussing, a host computer with devices. And I
- 25 believe that that would be the early to mid '50s.

1 power plant.

24 early '50s.

- 2 And you mentioned a meltdown
- 3 situation where you would want to open up certain

Q. In these systems, is it possible for

2 the host computer to select only a portion of all

3 the devices and have them do a particular thing?

For instance, in a nuclear power

6 plant, when the reactor scrams, you wish to open a

O. So it is fundamental in a system like

Q. And the computer is able to preselect

Q. How long has that technology been

19 preselect a certain number of the devices and have

A. Again, I would -- the earliest I

23 vessels and nuclear plants, which would be the

22 know of would be some of the systems on Naval

Q. You mentioned as an example a nuclear

14 certain ones of the devices and have them do a

18 around, where this distributed system could

10 this that you don't have the same command going to

group of valves and close another group, but

A. Well, of course.

A. Absolutely.

A. Correct.

20 them do a certain thing?

8 certainly not all.

11 everything?

15 certain thing?

- 4 valves, close certain valves, isolate part of the
- 5 system.
- Could that type of system be set to 6
- 7 be triggered on the onset of a certain event?
 - A. Of course.
- Q. How is that done, in general terms? 9 10
 - A. In fact, nuclear plants have one
- 11 unredeeming feature, which is, they go critical.
- 12 And when this happens, the energy they generate
- 13 spikes. And one nuclear plant in a hundredth of a
- 14 second can generate enough electricity for the
- 15 entire country.
- 16 The problem is that this much heat
- 17 will melt it very quickly, and the reaction time
- 18 involved between the onset of this problem and
- 19 getting the thing shut down is critical. And it's
- 20 much quicker than a human can react.
- 21 And so, even the earliest ones would
- 22 have a sensor that detected, you know, overheating
- 23 conditions or a flux of radiation and would
- 24 automatically take action to control it.
 - Q. Upon that event, then, send signals

Page 29 Page 31 1 to certain ones of the devices to do certain A. It does not look like I will receive 2 things? 2 any benefit from those, nor do I have any plans to A. Traditionally dropping the control 3 exercise them. 4 rods would be the first thing you would do. Q. In principle, is there any difference Q. I think we got up to 1996. You 5 between - I am looking back on your experience. 6 ultimately worked for at one time CDS and later 6 Is there any difference in principle between these 7 Acres Gaming? 7 distributed systems, like in a nuclear plant that 8 we were talking about, and in slot machines, from A. I worked for CDS in 1996. When I left CDS, I went to a company 9 the computer in a nuclear plant telling certain 10 called SpinTek, and after about 11 months, I went 10 valves or control rods to do something and a 11 to Acres. 11 computer in a casino telling certain slot machines Q. You are not currently employed by 12 12 to do something? 13 either of the companies? MR. RIEDINGER: I am going to object 13 A. That's correct, 14 on the basis it calls for an opinion. O. I should have done this at the 15 THE WITNESS: Certainly, the failures 16 beginning. 16 would be much more serious in a nuclear plant. 17 My name is Tony Dowell, and I 17 BY MR. DOWELL: 18 represent Computer Data Systems. Q. How about the computer-related We also have attorneys, of course, 19 aspects of it? Is there any difference in that 20 from Acres present. 20 area? You are not affiliated, then, with 21 MR. RIEDINGER: Same objection. 22 either one of the parties to this action? 22 THE WITNESS: Would you rephrase that MR. RIEDINGER: Do you mean Casino 23 23 question or say it again, read it back. 24 Data Systems? 24 BY MR. DOWELL: 25 THE REPORTER: You said, "Computer 25 Q. Based on your experiences and Page 30 Page 32 1 Data Systems." 1 knowledge of distributed systems in industrial 2 settings and in casinos, is there any difference in 2 MR. DOWELL: I am sorry about that, 3 yes. 3 the software in computer control aspects of 4 BY MR. DOWELL: 4 controlling a certain number of slot machines Q. That is correct, Casino Data 5 versus controlling a certain number of valves or 6 Systems. 6 control roads in an industrial setting? 7 My question was: You are not 7 MR. RIEDINGER: Same objection. 8 affiliated or presently have any ties with either THE WITNESS: It seems very similar 9 of the parties to the litigation that is currently 9 to me. 10 going on? 10 BY MR. DOWELL: 11 A. That's correct. I am not employed Q. So in July of 1996, did you stop your 11 12 nor doing consulting at this moment for either. 12 broad-based consulting work? Q. Do you currently own any stock or 13 A. Yes. 14 interest in either one of the parties? 14 Q. And went to work for CDS, correct? 15 A. I am currently out of the gaming 15 A. I actually started at CDS in 16 stock market. 16 September of 1996, I believe. 17 Q. Do you have any stock options in 17 Q. How did you come to work for CDS? 18 either of the companies? 18 A. I came to Las Vegas first because I A. I don't know if my stock options with 19 wanted the climate, and I wanted to be far from the 20 Acres have technically expired or not, but they are 20 East Coast after my divorce, and I didn't want to 21 \$2 under water, and it's not likely that they would 21 be in California. 22 expire in the money. 22 Once I was in Las Vegas looking 23 Q. So you are not going to --23 around with my set of computer skills, there was a 24 A. I have no --24 small number of obvious candidates for jobs, and I 25 Q. -- receive any benefit from those? 25 applied at a selection of them, and CDS made me a

Page 35

Page 36

Page 33

1 good offer that I accepted.

- O. Was there anything that attracted you 3 to the gaming industry with your background and set 4 of skills?
- A. As we talked about, it seemed like a 6 good match. I mean, it seemed like a fun industry. It seemed like a challenge, you know.
- Q. How were your responsibilities described? Let me rephrase that. 9

Did anyone at CDS describe what your 10 11 responsibilities would be?

- A. Before I was employed there?
- 13 Q. Before you were employed there.
- A. Of course. 14

12

3

- Q. And how were those described? 15
- A. The first description I saw was in an 16 17 advertisement in the paper.

And then, during the interviewing 18 process, they went into detail as to what I would 19 20 be doing were I employed.

Q. And what were the details that you 21 22 were provided?

23 A. The position I applied for was 24 manager of electrical engineering, and they

25 explained that I would be in charge of the hardware

Q. Were the job responsibilities or

2 day-to-day tasks of these people to be

3 programming? Is that accurate?

A. About half would be programming.

5 Board design is separate, not programming. Q. Were there any other individuals in

7 CDS, not in your group, that were doing programming

8 related to the Oasis?

A. Oh, yes. There were approximately 10 ten or more that were doing the software and 11 database back end.

12 Q. Could you describe what that is, the 13 software and database back end?

A. In CDS's system, in each slot 15 machine, they have a device called a Sentinel,

16 which is a very small computer.

17 That would communicate over one of 18 these 45 networks back to a device called a DPU.

19 which is a router or a concentrator, and that would 20 talk 485 back to a computer called a Polar.

21 And from the Sentinel up to the Polar 22 was in my group. And from the Polar and everything

Q. I would, of course, like to pull out 25 diagrams and maps, but we have confidentiality

Page 34

1 and firmware for their Oasis division and the

2 engineers in it. Q. What is the Oasis division?

A. CDS, like many companies, has a bunch 5 of semi-autonomous divisions.

In CDS, they have a division for 7 R and D, they have a division for their wide-area

8 progressive games, they have a division that

9 produces their slot machines, and they have the

10 Oasis division, which is their player tracking. 11 slot accounting division.

12 Q. And you were going to be in charge of 13 that entire division?

A. No. I was going to be in charge of 14 15 the hardware and firmware for that division.

Q. This is based on your earlier 17 testimony. You were going to be in charge of, 18 what, the hard wiring -- or, the design of the 19 hard wiring of circuit boards for the player 20 tracking, slot accounting division?

21 A. And the software/firmware that would 22 go onto those boards.

Q. How many people were you to have 24 under your management responsibilities? 25

A. Approximately five.

1 issues, as I am sure you can imagine.

23 else would be in the software group.

2 A. Well, I believe that a map such as

3 you're talking about would be familiar to any of

4 your customers and would be used in CDS's sales

5 literature. I'm not certain it would be

6 confidential at that level, depending on how

7 detailed it was.

MR. DOWELL: I like to take a break 9 about every hour. Usually, there is someone that

10 can use it, whether it is one of the attorneys, the 11 witness, or the court reporter. So we have been

12 going about an hour. Why don't we take a break and 13 come back in about five or ten minutes.

THE WITNESS: Okay. 14 15 (There was a recess taken.)

16 (Exhibit 306 was marked for

identification.)

18 BY MR. DOWELL:

17

25

Q. I am going to mark as Exhibit 306 a 20 document that is Bates numbered -- that is those

21 little numbers that are stamped down at the

22 bottom -- CDS 2000002 through -3, and it looks

23 like a document signed by you and dated

24 September 8th, 1997.

Do you recognize this document?

| | | | July 15, 17. | <u> </u> |
|-----|---|----------|---|----------|
| 1 | Page 37 | <u>'</u> | Page : | 39 |
| | 1 A. Yes, I do. | | Q. So it is fair to say that how | |
| | 2 Just by the way, note that my last | : | many times did you give trial testimony? | |
| ı | 3 day of employment at CDS would have been | 3 | A. I can't recall. Most cases would | |
| ł | 4 September 8th, 1997. | 4 | settle, of course, so, you know, infrequently. | |
| | 5 Q. What is this document? | 5 | Q. More than once that you gave trial | |
| ١ | 6 A. This is an employee patent and | 1 | testimony? | |
| | 7 confidential information agreement. | 7 | A. I've been in court a number of times | |
| | 8 Q. And what is the significance of this | 8 | on various issues. | |
| | 9 confidentiality agreement that you signed with | 9 | Q. Do you recall any of the specific | |
| 1 | 0 Casino Data Systems? | 10 | courts that you were in? | ŀ |
| 1 | A. CDS has many things that they | 11 | A. Back in New Hampshire, I suppose it | - |
| 1 | 2 consider proprietary that they would not like their | 12 | would be like Carol County District Court. | ı |
| 1: | 3 competitors to know. This document limits what an | 13 | Q. A state court? | |
| 14 | 4 employee may say to whom. | 14 | A. Yes. | |
| 1: | Q. You understand, pursuant to this | 15 | Q. Did you ever give testimony in the | Į |
| 10 | document, your obligation to keep specific facts | 16 | federal court? | Ī |
| | 7 and information that is proprietary to CDS | 17 | A. Not that I know of. | - |
| 118 | 3 confidential? | 18 | Q. How about in federal bankruptcy | |
| 19 | A. Yes, I do. | 19 | court? | - 1 |
| 20 | , , , , , , , , , , , , , , , , , , , | 20 | A. Perhaps once. | - |
| 2 | ever given a deposition before? | 21 | Q. Did you go through the process where | - |
| 22 | A. Oh, yes. | 22 | a lawyer asks you about your background and your | - [|
| 23 | Q. Have you ever given testimony at | 23 | qualifications in order to qualify or I guess, | |
| 24 | trial before? | 24 | to qualify you as an expert? | |
| 25 | A. Yes. | 25 | A. I don't recall the exact process in | ١ |
| | Page 38 | Г | Page 4 | 0 |
| 1 | | 1 | federal court, but certainly, what we did this | 1 |
| 2 | testimony before? | | morning, where you went through my background, | 1 |
| 3 | A. Bankruptcy, primarily, in mail order | | seemed fairly familiar. | ı |
| 4 | businesses. When there was hints of fraud, | 4 | Q. In the testimony that you have given, | - |
| 5 | sometimes I would testify as to what I found on | 5 | have you ever had anyone or any court reject your | |
| 6 | their computer systems as an expert witness. | | testimony as being unqualified? | |
| 7 | Q. When have you served as an expert | 7 | A. I don't think so. | |
| 8 | witness in those fields? | 8 | In this particular case, both CDS and | ı |
| 9 | A. During my consulting days. | 9 | Acres chose to employ me, so I think that they | 1 |
| 10 | Q. So you have been qualified by a court | 10 | might both have a hard time claiming I was | |
| 11 | of law as an expert in what? | 11 | unqualified, wouldn't they. | - |
| 12 | A. Various computer issues. | 12 | Q. Fair enough. | ı |
| 13 | Q. How many times? | 13 | So it is fair to say that on many | |
| 14 | A. I can't tell you an exact number, but | 14 | occasions, you have been utilized as an expert in | |
| 15 | a few. | 15 | the computer programming field? | |
| 16 | | 16 | A. I have certainly been involved with | 1 |
| 17 | | 17. | computers and legal issues before. | |
| 18 | A. I'd rather not guess, but it would be | 18 | Q. When providing testimony, can you | 1 |
| 19 | | 19 | describe what your area of expertise has been in | |
| 20 | i | | the legal disputes you have been involved with? | |
| 21 | | 21 | A. I mean, it varies depending on the | |
| 22 | Q. During what time period was this? | 22 | case. I mean, you're familiar with my background. | |
| | | | It would be those areas I would feel comfortable | |
| 24 | | 24 | giving an opinion. | |
| 25 | A. Yes. | 25 | Q. I ask you not so much to retread the | 1 |

Page 44

| P | age | 4 | 1 |
|---|-----|---|---|
| | | | |

1 ground we already went over but to put a name on it 2 or put it in a box and say you can generalize and 3 say this man's expertise is what.

A. 90 percent of large computer systems 5 seem to be involved with accounting one way or 6 another. And many cases, if you have an accounting

7 failure or dispute, it could end up in court.

Engineering seems an awful lot less 9 likely, in my history, to be an issue in court.

10 Q. So would you say that your area of 11 expertise in your prior work has been in the area 12 of distributed computer systems?

A. No. Not as far as anything in court 13 14 goes.

15 Q. So not necessarily in that particular 16 area?

17 A. The distributed computer systems, 18 such as the oil facilities, Naval ships, tankers, 19 liquefied natural gas plants, power plants, I don't 20 know that I've ever been qualified as an expert or 21 testified in regards to one of them.

22 Q. You have just had practical, hands-on 23 experience in those areas, then, correct?

24 A. That's correct.

Q. Do you have a subject for your Ph.D.

1 with other programming personnel.

From your time at CDS, did you ever 2 3 see an Oasis II system overview, basically a map of

4 the different components of the Oasis II system?

A. I think I've probably seen many 6 different versions similar to that,

(Exhibit 307 was marked for

identification.)

9 BY MR. DOWELL:

Q. I give you a document that I have 10 11 just marked as Exhibit 307.

12 Do you recognize what that document 13 is or depicts?

A. It looks like a drawing of how the 14 15 various pieces in an Oasis system are hooked 16 together.

17 Q. Is that something that you are 18 familiar with from your time at CDS?

19

14

20 Q. So I am not showing you anything that 21 you have not seen before?

22 A. I don't know if I have seen this 23 exact document, but certainly many like it.

24 Q. In reference to this, can you point 25 out - I recognize from your earlier testimony,

Page 42

1 some of the terms that are on here, such as Polar,

2 I think I recognize.

Was there a particular area of this

4 chart that you were responsible for at CDS? A. Yes. Basically, it would be the

6 green links and network devices that are linked 7 together with the green highlight.

And that would go from the hostess 9 drawing at the Polar through the ONC to the turbo 10 DPU down to the Sentinel.

Q. How did you describe this area of 12 responsibility? You gave me a term for it before 13 the break.

A. Hardware and firmware?

15 Q. Yes. Now, is hardware and firmware 16 involved in the other areas of this system?

17 A. Certainly, CDS has other hardware and 18 firmware areas.

Primarily, they would be the gaming, 20 the games themselves, where CDS builds their own

21 games. The other main area where CDS would

23 have hardware and firmware would be the sign 24 division with the external and overhead signs. And 25 I was not really involved with that much.

1 thesis?

25

A. It as a distributor of artificial 2 3 intelligence and planning.

Q. Could you describe what that is?

A. The types of distributed systems 6 we're talking about are relatively stupid, and the 7 information tends to flow up to the host computer 8 where it's processed.

Artificial intelligence involves 10 having a distributed system being built out of much 11 more intelligent units that each can make decisions 12 on their own and how to get these to cooperate in 13 an efficient manner.

14 Q. Does the Acres Gaming system have 15 that type of artificial intelligence system?

A. No. I don't believe anyone in the 16 17 gaming industry is using that yet.

Q. So all of the distributed systems in 19 the gaming industry are the simple type?

A. Pretty straightforward.

21 Q. The kind that have been around for a 22 long time?

A. Yes.

20

23

Q. Before we broke, I was asking you 25 some questions about your role at CDS in comparison

| M | artin Dempsey Conc | len | selt!'" July 13, 1999 |
|----|---|-----|---|
| | Page 45 | 5 | Page 47 |
| 1 | Q. So you worked for CDS for about a | | A. Yes. In fact, the SpinTek system |
| 2 | year? | : | 2 hooks up to Oasis. There's an agreement between |
| 3 | A. Exactly one year, to the day. | : | the two companies. |
| 4 | Q. Exactly one year, to the day. | 4 | (Mr. Schodde and Mr. Broaddus |
| 5 | And then, what did you do after that? | 1 : | exited the deposition room.) |
| 6 | A. I had received a very good offer from | 16 | BY MR. DOWELL: |
| 7 | SpinTek Gaming, with a salary increase. And I | 17 | Q. How long were you with SpinTek? |
| 8 | accepted that position and started at SpinTek as | 8 | |
| 9 | | 9 | Q. Where did you go after that? |
| 10 | Q. What does SpinTek make? | 10 | |
| 11 | A. SpinTek makes slot machine | 11 | |
| 12 | peripherals, primarily their prime device is a | 12 | to - could you describe the circumstances of your |
| | weighing hopper. | | move from SpinTek to Acres? |
| 14 | Q. What is a weighing hopper? | 14 | |
| 15 | A. A weighing hopper is a hopper, a | 15 | Robert Guinn, and he and I had a few issues, and I |
| 16 | device that holds the actual coin in the slot | | decided to seek employment elsewhere. |
| 17 | machine, combined with a load cell that can | 17 | |
| 18 | actually weigh how many coins are in the device and | 18 | A. Personality issues. |
| | then communicate that back to a host system. | 19 | • |
| 20 | Q. What were your responsibilities as | | SpinTek was completely finished, and their new |
| 21 | the director of engineering at SpinTek? | | product hadn't started yet. And so, there was a |
| 22 | A. I was basically involved with doing | | sudden lack of work, and we haven't handled this |
| 23 | the hardware and firmware for their systems. | | well. |
| 24 | Q. Who were these systems marketed to? | 24 | |
| 25 | A. In general, casinos. Anyone that | 25 | How was it not handled well? |
| | —————————————————————————————————————— | + | |
| , | Page 46 would have slot machines would theoretically be a | ١, | Page 48 A. He wished me to do busy work and make |
| | customer. | ; | work, and I wasn't very happy to do that, and we |
| 3 | However, you know, practically, it | | had a few talks about it, and I decided to find |
| | would be customers with many slot machines. | 1 | someplace that had a challenge. |
| 5 | Q. This is a device that was added to | 5 | Q. At least in the gaming industry, is |
| 6 | existing slot machines? | 1 | your work kind of cyclical where you have really |
| 7 | - | | very busy times, and then you get a system |
| 8 | Q. Why would a company add one of these | , | installed, and you have a downtime for a while? |
| 9 | devices to a slot machine that was already | 9 | A. Well, it seems to be a yearly cycle |
| | installed? | 1 - | with the gaming show, where people tend to get busy |
| 11 | A. On the floor of a casino, in the | | to get new product out for the gaming show. |
| | hoppers, there would be millions of dollars in | 12 | Or whenever the sales department |
| | coins, and should a person open up these devices | | makes a commitment, sometimes engineering has to |
| | and scoop handfuls of coins out, there would be no | | scramble to keep up. |
| | computerized way to determine this. You would have | 15 | But overall, I would say that gaming, |
| | video. | ı | since I've been here in '96, has been pretty good, |
| 17 | Given that many slot techs are going | | pretty steady. |
| 18 | in and out of machines for various good reasons all | 18 | Q. How did you first make contact with |
| | day long, it would be hard to determine if you were | | Acres? |
| | losing money due to theft. | 20 | A. A gentleman that I used to work for |
| 21 | One of the big advantages of the | | at CDS, named Rich Schneider, had left to go to |
| 22 | SpinTek hopper would be that you could determine if | | Acres years earlier, a year earlier. |
| | someone took even one coin out of that hopper. | 23 | And when I needed to find a new place |
| 24 | Q. You can tell that constantly, then, | | to work, I started calling up people that I knew in |
| 25 | with this system? | | the industry that might have jobs available, and |
| _ | -American Court Penerteen 702/240-4202 | | Page 45 Page 40 |

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1 Rich suggested that, in fact, Acres was hiring and 2 asked me to see a gentleman named Pat Powers.

Q. What was your relationship with 3

4 Mr. Schneider at CDS?

A. I believe Rich's title at CDS was 6 vice president of game development or something 7 similar.

He was in the gaming division, not 9 the Oasis division. And so, he was, you know, in 10 physical terms, let's say, above and kind of 11 towards the side.

12 But we had a couple products where 13 games and systems talked together, and in these 14 products, I interfaced with him, and we debugged 15 some problems together.

Q. Is he a personal friend?

17 A. I would hope so. I mean, he's not a 18 close friend, but I would have a beer with him.

Q. So Mr. Schneider put you in contact 20 with Mr. Powers?

21 A. Yes.

Q. What was Mr. Powers' position at 22

23 Acres?

16

24 A. Pat Powers was in charge of

25 developing what they referred to as the Wizard

1 machines: is that correct?

A. Sure. It has bunches of features.

Q. Then what is the other part of the

4 system, other than the back part?

A. Let's call it the front part.

6 Q. The front part?

A. And the front part would be the stuff

8 that isn't in the back room. It's the stuff that's

9 out on the casino floor, i.e., with the CDS system,

10 it would be the communication wires and devices

11 that actually attach to the slot machine and

12 transmit the data to the back part.

13 Q. How long has Acres made the front 14 part?

15 A. Oh, I don't know. Since years.

16 I believe John Acres was the first person in the

17 industry to develop a slot system, long before I 18 got here.

19 Q. So that has always been their

20 product, the front part of the system, correct?

21 A. Well, they previously did entire

22 systems as well.

23 Before they entered into a business

24 arrangement with IGT, they had an entire system

25 built on Paradox, I believe, and it's still in use

Page 50

1 system, which is a SQL database version of their

2 player tracking and bonusing system or accounting

3 bonusing.

Q. What does "SOL database" mean?

A. Acres' previous products that

6 involved systems were in conjunction with IGT and

7 used the IGT database. And it used all of Acres'

8 hardware and firmware, but the back part of it,

9 what I have referred to as, you know, all the

10 computers, not the hardware, were IGT components.

11 And with the Wizard system, Acres 12 decided to produce actually that back part of the

13 system themselves.

Q. You were just making hand motions 15 towards the Oasis map, I guess, and you were

16 talking about what I think you called the back part

17 of the system.

18 For the Oasis system, what is the

19 back part of the system on that?

A. The back part of all of the systems 20 21 would be all of the various computers and

22 applications that run the software and the

23 database.

O. That is the software that takes care 25 of tracking players as well as controlling slot 1 at some casinos in town.

Q. Did there come a time, then, when

3 Acres stopped making their own back part of the

4 system and hooked up with IGT?

5 A. You're asking me questions out of my

6 area.

2

7

Q. It was before your time?

A. Yeah. 8

9 Q. Okay.

10 A. And not only before my time, you

11 know, but much higher level than me who decides

12 what hooks to whom. That would be a good question

13 for John Acres.

Q. I am trying to get a feel for what

15 this Wizard system was going to do differently than

16 what Acres had done before.

Is it fair to say that the system

18 that Pat Powers was developing was going to replace

19 Acres' dependence on IGT for its supply of the back

20 part of the system?

21 A. I think that's a good

22 characterization.

23 Q. When did Acres start to develop this

24 back part of the system?

A. I don't know. It would have been

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Page 53

1 before I got there, I guess.

I know that when I was hired in

3 approximately September '98, it was underway.

- Q. Do you know how long this had been in 5 development at Acres?
 - A. Before my time.
 - Q. About how long before?
- A. Well, it wasn't finished. I mean, I
- 9 would assume it would be less than a year.
- Q. Where was the first installation of 11 the Wizard system?
 - A. At Mandalay Bay.
- 13 Q. And when was that?
 - A. Well, the first full installation was
- 15 at Mandalay Bay, and Mandalay Bay opened on
- 16 March 2nd, I believe, 1999.

17 Previous to that, there was a test

18 system that was put in at Silver City, as is normal

19 in this case.

7

12

14

- 20 O. When was that?
- A. Certainly before New Year's Day. So 21
- 22 it would have been in late 1998.
- Q. At what stage of development was the
- 24 Wizard system when you started at Acres in
- 25 September of '98?

A. Well, it's somewhat of a misnomer as 2 regards the Wizard system.

However, bearing in mind its history,

- 4 originally what it did with the IGS/IGT system was
- 5 that it translated the floor Acres protocol into
- 6 IGT's protocol for their system.
- 7 Q. So historically, it served this
- 8 translation function?
- A. That's correct. It communicated with 10 the IGT host which ran on a UNIX machine.

In some ways, you could say a SQL

- 12 database is similar to a host, and its job was to,
- 13 again, translate the floor protocol to that
- 14 database. It's a little bit of a stretch.
- 15 Q. What is the SQL - is that the term,
- 16 SQL database?
- 17 A. Yeah. SQL is generally spelled
- 18 S-Q-L.
- 19 And the particular SQL database being
- 20 used was Microsoft SQL server. And this is a
- 21 modern, large, reliable database that Acres chose
- 22 to use for this product.
- 23 Q. The SQL database, Acres did the
- 24 programming and all the hardware for that element
- 25 of the system, right?

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- A. The accounting part -- the database
- 2 schema, the data base design had been done, and the
- 3 accounting part was underway.
- It did certain accounting functions,
- 5 but not the complete set that would be required.
- 6 And the translator, which is the program that I
- 7 worked on, would be -- was working at least enough
- 8 to do limited data transfers into the back end of
- 9 the system but, again, was missing large pieces of
- 10 functionality.
- 11 Q. I think you gave a partial definition 12 there, but what is the translator?
- 13 A. The translator is a software program
- 14 that runs on a normal PC that doesn't have a direct
- 15 analog, exact analog in the CDS system.
- 16 It would be somewhat equivalent to 17 the transaction processor in this diagram.
- 18 Its purpose was to be the final
- 19 division between the front and back part. It was
- 20 the meeting point where the data from the floor
- 21 would end up in the database, and data in the
- 22 database would end up on the floor.
- 23 Q. From the term that is used in
- 24 documents and that you used, referring to it as a
- 25 translator, what is translated?

- A. Well, the database itself is a
 - 2 program that you buy from Microsoft, but certainly,
 - 3 all of the programming to make it store the correct
 - 4 data and, you know, produce the correct reports and
 - 5 such was done by Acres.
 - Q. Is there a corollary -- prior to the
 - 7 Wizard system, was there a SQL database in any
 - 8 Acres system in, say, '95 or '94?
 - A. No. I believe that Acres' previous 9
 - 10 system used Paradox.
 - Q. Is there a corollary to the Oasis
 - 12 system on the map for a SQL database?
 - A. Well, it's not specified very well on
 - 14 the map, but it would be the file server and the
 - 15 database that CDS used. Again, it would be

 - 16 Btrieve. B-t-r-i-e-v-e.
 - Q. Is it all capitalized?
 - 18 A. I think just the first letter is.
 - Q. Did the Wizard system have a player 19 20 tracking function?
 - 21 A. Not in Mandalay Bay. I believe they 22 are working on it now.
 - Q. Didn't it during the time that you 23
 - 24 were at Acres?

17

25

A. No. The floor hardware provided the

CondenseIt!™ Page 57 Page 59 1 basic ability to count, you know, points for a THE WITNESS: I believe that we were 2 player. And all the Acres system did with this was 2 sending data back and forth to his AS/400 probably 3 pass it on. 3 in December. Q. Pass it onto what? 4 BY MR. DOWELL: A. Passed it onto the player tracking Q. What involvement did you have on the 6 system you had. In Mandalay Bay's case, that would 6 programming for the Bodenstab Interface Program? 7 be Tom Bodenstab software. A. I was involved with some of the Q. When was that software implemented in 8 initial talks with Tom, and for one week when Perry 9 the system? 9 went on vacation, I helped the people in Jackson, MR. RIEDINGER: Objection. Vague. 10 Mississippi, System Source, take care of some of 11 Which software do you mean by "that software"? 11 the communications issues, low-level 12 BY MR. DOWELL: 12 communications. O. The Tom Bodenstab software. 13 Q. What is the role of the people in A. There was an interface to Bodenstab 14 14 Jackson, Mississippi, System Source, in the 15 software running sometime in December of 1998. 15 Bodenstab Interface Program? Q. Where on the system does the A. I don't really know, except, you 17 interface to the Bodenstab software run? 17 know, from what Tom has mentioned, and it seems to 18 MR. RIEDINGER: Objection. Vague. 18 be they're subcontractors or partners or something. 19 Which system? Q. Of his? 19 20 BY MR. DOWELL: 20 A. Yes. 21 Q. You can answer. 21 Q. Tom Bodenstab -- Bodenstab? A. Would you repeat that question. 22 22 A. Bodenstab. 23 Q. Where in the system does the 23 Q. Bodenstab. 24 interface to the Bodenstab software run? 24 A. I am not certain who is in charge or 25 A. There is a computer in the back part 25 whether they are partners or what, but they Page 58 Page 60 1 of the system that's referred to as BIF, or the 1 certainly have a business relationship. 2 program is referred to as BIF, which stands for the Q. Do you know what the System Source 3 Bodenstab Interface Program. 3 responsibilities are? Q. Is that a computer that is -- that A. Well, the part that I know about was 5 is all that computer does? 5 that they were expert at the network communications A. Correct. 6 on the AS/400. Q. Do you know who at Acres did the Q. Do you know if anyone else at Acres, 8 programming for the Bodenstab Interface Program? 8 other than Mr. Waldner, worked on the Bodenstab A. With the exception of one week when 9 Interface Program? 10 he was on vacation, when I worked on it a little. 10 A. With the exception of that couple 11 the gentleman's name was Perry Waldner. 11 days with me, I don't believe anybody else did. 12 Q. Do you know if the Bodenstab Q. Do you know when Mr. Waldner first 12 13 Interface Program is completed at this time? 13 worked on the Bodenstab Interface Program? A. Well, it's been working at Mandalay A. It would probably be October 1998. 14 15 Bay since opening. 15 Q. I don't believe I have asked you the Q. So that is something --16 16 basic question. What is the role of the Bodenstab 17 A. Software is never finished. 17 portion of the system? 18 Q. When was it functional first? MR. RIEDINGER: Objection. Assumes 18

20

25

24 facts testified to. Assuming the Bodenstab system

Q. When was the Bodenstab part of the

MR. RIEDINGER: Objection. Assumes

21 system able to communicate with the rest of the

A. Fully functional?

22 system or the first or latest date?

25 was on the Acres system.

19

20

19 there is one system. Facts not testified to.

Q. What is player tracking?

23 do with player tracking.

24 BY MR. DOWELL:

21 creates the player cards, enrolls players, tracks

22 their play, and handles all reporting. Anything to

THE WITNESS: The Bodenstab software

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A. Casinos in Las Vegas offer what is
known as a slot club. In this slot club, they
generally give out what is referred to as a player
tracking card, which usually these days is a
magnetic card with a number encoded on it.
Players when they play insert this
card into the machine they are playing, and their
play is recorded. And based on how much play they
record on that card, they get various bonuses or
benefits or free nights in the hotel, whatever.

Q. Are there any advantages to the casino in keeping track of these people in the slot club?

A. It's a marketing issue. I assume,
15 since almost all the casinos have it, that they
16 think it's a good thing.

17 Q. Can you explain why that is a good 18 thing?

19 A. I am not a marketing expert, and 20 personally, I don't gamble. They give you some of 21 the money you lose back? It doesn't make much 22 sense to me.

Q. Is one of the functions of the Bodenstab software to keep a database of players that play the slot machines?

Pag
A. I think the only way to track the

2 play is have a list of them.
3 Q. You said the Bodenstab software
4 creates the player cards.

What are the player cards?

A. The player cards are plastic Track 2 magnetic cards, similar in shape and size to a Visa card, with the player's name embossed on it that he uses when he plays in the casino.

10 Q. How does one use the card when in 11 play? How does that work? Could you describe 12 that?

13 A. At any time when you're in front of a
14 slot machine, you can slide your card into the card
15 reader, at which point it will indicate that it has
16 read your card. It generally will tell you some
17 sort of information, like your name or something,
18 and at that point, all of your play is recorded for
19 presumably later benefits.

Q. You said the Bodenstab software creates these player cards?

22 A. Yes.

Q. The card reader, who is responsible for implementing the card reader in a gaming system?

A. The card readers - well, there's

2 various card readers all around the casino.

3 The card readers that are in the slot

4 machine were created by Acres.

Q. Looking at the Mandalay Bay
installation, Acres sold the card readers to
Mandalay Bay for installation on slot machines?

A. I don't know the financial details.

9 Q. You know that Acres is responsible 10 for selling the card reader portion?

A. We built the card reader portion.

12 Q. How does Acres go about enabling the 13 card readers to read the cards created by the

14 Bodenstab system?

15 A. Very similar to the way it does with 16 the IGT system.

The Bodenstab system sends a list of what to expect, a list of good cards that it has recated.

When we see a card that it has told us about, we then send it a message that says we

Q. When you are saying, "we," who are you referring to?

25 A. I mean Acres. At the time I was

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1 working on it.

Q. Okay. I just want to make that clear.

So when the Acres system sees a card that the Bodenstab software has told the Acres system is valid, then the card is recognized?

A. Yes.

7

8 Q. Can you describe, in as layman-like
9 terms as you can, how the Acres card reader reads a
10 card?

11 A. The card readers are, you know, off 12 the shelf, commonly available technology. It's the 13 same sort of card reader that's found in a gas pump 14 or any credit card application.

When you swipe the card or insert the card through the reader, electrical signals are generated that correspond to magnetized regions on the card, and those signals are then sent up to the system.

Q. And then, is it accurate to say that that signal is sent through the Acres system to the Bodenstab software?

23 A. Yeah. In all cases.

For instance, with using the IGT player tracking system, it would be sent through to

Page 65 1 the IGT side. Whatever is on the back end, it gets 1 leads to this 20-digit number? 2 sent through. A. Yes. Q. Does the card reader do any kind of 3 3 Q. Could you --4 translation or manipulation of the data that it A. It's the Track 2 format. The Track 2 5 gets off the card? 5 format, which is what these card readers are A. The card reader itself is a very 6 designed to read, basically explains or describes 7 simple device with three wires coming out of it. 7 what sort of magnetic patterns get turned into what 8 It has no intelligence. 8 numbers. Q. Is there any firmware on the card Q. What is the source of the Track 2 10 reader? 10 format? Is that an industry standard of some sort? 11 A. Not on the card reader usually, but, A. It's more than just one industry 12 you know, in the slot machine, the player tracking 12 standard. It's sort of standard in the world. 13 portion, which we could call a SMIB, the slot There are -- basically, on the back 14 machine interface board. This would be equivalent 14 of a magnetic card, there are basically three 15 to the Acres BE 2 or the CDS Sentinel. Interprets 15 tracks. And these tracks are different physical 16 the electrical signals from the card reader. 16 locations on the black magnetic stripe. 17 Q. How does it interpret the card 17 And the people that make these cards 18 reader? 18 have developed standards as to how to encode and 19 I guess, in my mind, I can envision a 19 decode them. 20 device that would just pass the data along and 20 Q. So the Track 2 format is what is on 21 another kind that would do some manipulation of the 21 the card, then, right? 22 data. A. Well, it's what is on the card and 23 Is one of those more accurate than 23 what the reader is designed to read. 24 the other? 24 Q. Does the Track 2 format have anything 25 A. Yes. 25 to do with the SMIB? Page 66 Page 68 MR. RIEDINGER: Objection. Compound. 1 A. No. I mean, the Track 2 is used in THE WITNESS: Yes, certainly 2 many locations in other nongaming applications. 3 compound. Q. So the SMIB is developed to 4 BY MR. DOWELL: 4 understand the Track 2 format? 5 Q. You can answer. 5 A. Yes. A. The Track 2 format is used in many Q. There is firmware, then, in the SMIB 6 7 industries other than gaming, and there's a 7 that converts the signal from the card into a 8 standard way of interpreting the magnetic 1's and 8 20-digit number? 9 zeroes that are on the card, the positive and A. In the Acres system, that's what 10 negative region. 10 happens. 11 This standard interpretation involves 11 Q. Are you familiar with the CDS system 12 converting them to numbers between 0 and 9. 12 and what it does in that respect? 13 Q. So the SMIB converts the signal from A. Yes. 13 14 the card reader into numbers between zero and 9? 14 O. What does that do? A. Yes. The SMIB puts out in the Acres 15 15 A. Is this something I should answer 16 system a 20-digit number. 16 with Acres people present? Q. Is that standard, for the SMIB to put 17 Q. They are all under confidentiality 18 out a 20-digit number? 18 orders and agreements, so we can answer that with A. I don't believe there are any 19 counsel. 20 standards with SMIBs, but if you buy card readers 20 A. The CDS Sentinel is more 21 from companies that make such devices and you swipe 21 complicated. It reads in the numbers and then 22 cards in them, they also create the same 20-digit 22 applies an algorithm to them to determine if 23 number. It's variable length. It could be less 23 they're good or bad, and then, it compresses those 24 than 20 digits. 24 numbers down to five bytes. 25 Q. Is there a standardized format that 25 MR. DOWELL: I guess I should ask.

Page 69 Page 71 1 then -- by "corresponding," I don't mean it does 1 Jerry, I am not as familiar with the personalities 2 in the case. We all are safe to hear this 2 the same thing, but something similar to that in 3 information? 3 the Acres devices? MR. RIEDINGER: It depends on what A. There is a SMIB, a slot machine 5 level of confidentiality that we designate it on. 5 interface board, that is a small computer in each 6 I mean, I am covered with all levels of 6 slot machine in the Acres system as well. 7 confidentiality. Mr. Haynes is covered with Q. The SMIB on the Acres SMIB, then, 8 confidential but not highly confidential. 8 doesn't do this algorithm? MR. DOWELL: I think we are getting A. The SMIB firmware was designed up in 10 into highly confidential subject matter here that 10 Corvallis, and I have never seen it and am not 11 we would end up designating on the transcript as 11 familiar with it. 12 highly confidential. 12 But it's my understanding there is So if we could, if Mr. Haynes could 13 nothing anywhere close to that in there. It just 14 step outside when we discuss this, we'd appreciate 14 passes the number up unchanged. 15 it. 15 Q. Do you know who at Acres was 16 MR. RIEDINGER: As an alternative, he 16 responsible for designing the SMIB firmware? 17 can agree to discuss the information only with 17 A. I don't know who designed it. It was 18 outside counsel and no one else. 18 designed before I got there. I know if I had a MR. DOWELL: We can handle that, 19 19 question, Mark Daley would probably be a very smart I guess I will state on the record 20 20 person who could answer, but I don't know his exact 21 that we had, I think -- the concern about in-house 21 history. 22 counsel receiving highly confidential material led 22 Q. What did you mean that the CDS 23 to the structure of the protective order as it is, 23 Sentinel reads in the numbers and then determines 24 and without waiving or making any kind of implied 24 if they are good or bad? 25 statements about other highly confidential 25 A. Again, just to make it clear, there's Page 70 Page 72 1 information, I think for the purposes of the 1 nothing I can say here that would cause me a 2 information that I anticipate Mr. Dempsey will 2 problem with CDS as far as confidentiality goes? 3 provide, I think that will work, and as long as 3 O. No. 4 there is that limitation on it. 4 A. Okav. 5 MR. RIEDINGER: Okay. 5 Q. And just to explain, we are all bound 6 MR. DOWELL: So we can agree to 6 to keep it confidential as well. So it only goes 7 that. 7 to us and for use in court. It doesn't go to 8 BY MR. DOWELL: 8 people at CDS, anyway. Q. Mr. Dempsey, you said the CDS A. The CDS Sentinel, when it reads in a 10 Sentinel is more complicated and that it reads in 10 number, can determine two things, and the first 11 the numbers from the card reader and then applies 11 thing is: Does the number match a certain 12 an algorithm to determine if it is good or bad, and 12 mathematical algorithm. If it doesn't match this 13 then, it compresses the numbers down to five bytes? 13 algorithm, the Sentinel immediately knows that it's 14 A. Yes. 14 an invalid card. 15 Q. Does anything similar go on -- let If it does detect that it's a valid 15 16 me back up. 16 card, based on this algorithm, the next thing it 17 Does that occur at the slot machine 17 checks is a field in the card number to determine 18 in the CDS system? 18 which site the card is used at, and it will reject A. In the CDS system, that occurs in the 19 cards that aren't set for the correct property, 20 Sentinel, which is their SMIB. It's a small 20 such that, say, Circus cards would not work at

22

25

24 benefits?

21 Stations or some other customer.

Q. Does the Acres Gaming system, not

A. Acres uses an employee card, which is

23 limited to the SMIB, also have those same two

Q. So each one of the slot machines has

21 computer that goes in the slot machine.

A. That's correct.

22

24

25

23 those things?

Page 75

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Page 73

1 not related to player tracking. And in the Acres

2 system, you can determine, you know, if an employee

3 card is valid or not, again, by doing a lookup into

4 a database table.

But the player tracking side of the

6 Acres system doesn't have any concept of a site or 7 any kind of checksum or check.

Q. How does the Acres system determine

9 if you have got the right card for the right

10 property, that you can't use a Circus Circus card

11 at the Hard Rock?

12 MR. RIEDINGER: Objection. Assumes

13 facts not testified to.

14 BY MR. DOWELL:

Q. Does the Acres system determine if 16 you have the right card for the right property?

A. The Acres system looks in a table, a 17

18 list of valid cards. If the card is in that list,

19 it's accepted. If it's not in that list, it is

20 not.

21

22

Q. How does it check the list?

A. The list is stored in the SQL

23 database, and the information is added to that

24 database by the BIF program, which it receives from

25 presumably some foreign player tracking system.

1 the Acres devices sending a 20-digit number 2 onward.

3 Does that 20-digit number represent a

4 card?

A. I probably should actually be pretty 6 specific here.

The Track 2 format, with a partial

8 insertion card reader of the kind that most of the

9 casinos use, has enough room to read 20 digits.

10 But the Track 2 format is variable length, so that

11 when you run a card through a Track 2 card reader,

12 if it is encoded, you will get some number that may

13 be up to 20 digits long.

14 MR. DOWELL: I think we have run over

15 a little bit. Why don't we take a five-minute

16 break and then come back.

17 MR. RIEDINGER: Okay.

18 (There was a recess taken.)

19 BY MR. DOWELL:

20 Q. Before the break, we were talking

21 about the Track 2 format and the 20-digit number.

22 How would you refer to this 20-digit

23 number? What is that?

24 A. It is a record of what is encoded on

25 the magnetic stripe. A representation of what is

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Q. In Mandalay Bay, it's the Bodenstab 2 system?

A. Yes.

Q. So there is a list on the Bodenstab

5 system, and there is a list on the SQL database?

A. I am not an expert on the Bodenstab 7 system, but as we discussed, they must have some 8 kind of player list.

On the Acres system, what we do is 10 have a list of valid cards. It doesn't -- we

11 don't actually have the same information or

12 detailed information, but we have enough for our

13 purposes to determine if this number that we've

14 read off the magnetic stripe is valid or invalid.

15 Q. But that verification process is not 16 done at the slot machine on an Acres Gaming 17 machine?

A. There are no checks at the slot 18 19 machines. The slot machine just reads the Track 2

20 information and sends it upwards. 21 Q. Now, the code -- there is a list on 22 the SQL database of players, I assume, correct, or

23 some kind of a number identifier?

24 A. Cards.

25

Q. We talked earlier about the SMIB in

1 encoded on the magnetic stripe.

2 Q. Is the 20-digit number stored in the

3 Bodenstab software, to your knowledge?

A. I'm sure he uses it in his system.

5 I don't know if he stores it in that format or

6 converts it to something else, but we send it to

7 him in that format.

8

13

14

18

Q. It is sent from the BIF --

9 A. The BIF program, right.

Q. Now, is there anywhere in the -- do

11 you know if the 20-digit number is ever converted

12 to a shorter number?

A. In the Acres system, it isn't.

Q. I take it, in the CDS system, it is?

A. CDS never actually sends the 20-digit 16 numbers anywhere. They convert it to this

17 five-byte pact format.

Q. What is a five-byte pact?

19 A. The 20-digit number is 20 decimals,

20 zero through 9, and in a computer, each one of

21 those digits takes up eight bits of space. Given

22 eight bits of space, rather than just using it for

23 zero through 9, it turns out that there are 256

24 choices you can make. So using the same space that

25 it would take to store five decimal digits, you can

| Γ | Page 77 | 7 | Page 79 |
|----|---|-----|--|
| | store an incredibly large number by making it | | 1 A. If it's scrunched, it's scrunched in |
| | nonprintable, binary. And so, CDS does this. | | the firmware and the communications wires. |
| 1 | Q. Where is that done on the CDS system? | - 1 | Q. The firmware? |
| ۱, | | 4 | A. Out at the slot machine. Again, the |
| ! | Q. At each gaming device? | 1 | 5 part I didn't do. |
| 1 | | 1 | Q. At the gaming device? |
| 7 | number is then used throughout the rest of the | 7 | ~ ~ ~ |
| 8 | system. | 8 | Q. You said, "If it's scrunched." |
| 9 | Q. I understand decimal. Is there a | 9 | I mean, do you know for a fact that it's scrunched |
| 10 | reference when you use the is that binary? | 10 | there? |
| 11 | A. This would be binary. | 11 | A. I've never seen the firmware code. |
| 12 | Q. So nowhere in the Acres system does | 12 | 2 I didn't work on it. But I have indications from |
| 13 | it use a binary representation of that 20-digit | 13 | the translator that they scrunch it. |
| 14 | number? | 14 | Q. Does the translator work with this |
| 15 | | 15 | 10-digit number? And that is the scrunched number |
| 16 | 3 , | 16 | I guess we've been referring to here. |
| | cases I don't think it's ever stored that way | 17 | A. If it gets one, it just unpacks it to |
| 18 | in the database, but in the floor hardware, I think | 18 | 3 20. |
| 19 | it's actually sent up as ten bytes. | 19 | Q. So does it always get a 10-digit |
| 20 | - • | 20 | number from the gaming devices? |
| 21 | A. Coming up from the Acres hardware to | 21 | A. You know, I almost forgot about that |
| | the translator, I think, in some cases, it is | 22 | 10 well, it's a 10 byte. |
| 1 | shortened from 20 down to 10. | 23 | · |
| 24 | , | 24 | ·· |
| 25 | A. It uses something called a packed BCD | 25 | it gets converted. |
| | Page 78 | | Page 80 |
| | format where you take two numbers and shrink them | 1 | Q. Okay. |
| 2 | into one and then unpack them later. | 2 | A. You know, I almost forgot about that |
| 3 | And again, in one byte of binary, you | 3 | 10-byte representation, and you know, I'm a little |
| | have a choice of up to 255. Again, with decimal, | 4 | vague on it. But I think that they come in that |
| | we're using 1 through 10. It turns out that with | | way over the network, and it unpacks, the first |
| | two digits of decimal, you have zero through a | 6 | thing it does. |
| 7 | hundred. So it's very easy to take zero through | 7 | |
| | 10, take two of them, you get zero through a | | a common, industrywide thing that's actually |
| | hundred and then later put them back. | | falling out of favor but was popular 10 or 20 years |
| 10 | The SQL database doesn't have a way | ı | ago, and it was a way to save space by scrunching |
| | to store that sort of number, you know, and the | | the numbers this way. |
| | 20-digit number is what goes into the back of the | 12 | With modern computers, it's pretty |
| | system. | | much unnecessary. |
| 14 | Q. The SQL database doesn't have a way | 14 | Q. Because of all the extra memory and |
| | to store the shortened number. Is that what you are saying? | | the value of storage isn't as high as it used to |
| 17 | A. That's correct. | | be? |
| 18 | Q. It does have a way to store the | 17 | A. Right. |
| | · · · · · · · · · · · · · · · · · · | 18 | Q. So the SMIB at the Acres device must then convert the 20-digit it is not outputting |
| 20 | | | • |
| | | | a 20-digit number; it is outputting a 10-byte number? |
| 22 | - N | 21 | A. I think it's doing a 10-byte number, |
| | _ _ | | that's right. You know, effectively, they're the |
| 24 | | | same. It's a simple one-to-one mapping. |
| | | 25 | Q. The 10-byte number, I couldn't look |
| | | | 4 |

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1 at this 10-byte number and have any comprehension 2 of what it is, correct?

A. Actually, you could.

If you take a look at a hexadecimal

digit, which in the C language, or people usually

must with an X in front of it, it turns out if you

had a decimal number, 1, 2, 3, 4, 5, and you looked

at the Hex representation of it, it would be 31,

32, 33, 34, 35 because all numbers start with a 3,

and the last digit is the same as the number.

Whereas, the packed representation of that, if you looked at it in Hex would be 1, 2 for the first byte, 3, 4 for the next byte, and then 5 in the third byte.

So just looking at it in Hex, you can actually see very easily what is going on.

17 Q. Did you testify earlier that the SMIB
18 didn't do any type of conversion of the number?
19 A. That's correct.

I don't really consider this a conversion. You know, it's just a sho

21 conversion. You know, it's just a shortening of 22 the same thing.

Q. Is there any kind of conversion of the 20-digit number in the Acres system to a 10-digit decimal number or 10 or 8 or a smarter 1 Q. What is the relationship between the

2 20-digit number and the 8-digit account number?

A. Well, I am not real certain.

Now, based on my knowledge at CDS. I think if you run it through the algorithm, you can

6 turn the 18-digit number into the 8-digit number.

7 But that algorithm is relatively complicated, and

8 you know, I can't do it on paper. I mean, it would 9 take me a couple hours to try and determine if that

10 were true.

11 Q. So there was an algorithm at CDS that 12 made this conversion from a 20-digit to a -- what

13 is that, an 8-digit decimal number?

A. There was an algorithm at CDS that broke it up, and I think one of the pieces was this

16 8-digit number. Another piece might have been the 17 site, I think.

18 Q. So this is in the Sentinel in each of 19 the devices on a CDS system that is doing this?

A. Well, the CDS system, the 5-byte thing that we talked about, this real compressed

22 form, I think has the 8-digit number in there, and

23 it also, I think, has the site in there.

Again, there's another little 25 algorithm that breaks that out.

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Q. Once it has this 5-byte number, it

2 can pull the 8-digit number out --

A. Exactly.

Q. -- and put it wherever it wants?
A. I believe, again, from my memory now,

6 that four of the five bytes correspond to this

7 8-digit number. So you just skip the one, and the 8 others are there.

Q. Does the Acres run anywhere an algorithm that converts from the 20-digit number to an 8-digit account number?

12 A. No. So far as I know, you know, that 13 process is CDS proprietary, and Acres doesn't have

14 it encoded in any of their software. Certainly,

15 none of the software that I was responsible for or 16 I'm aware of.

17 Q. So based on your understanding, then, 18 Acres gets access to both a 20-digit number and an

19 8-digit number by receiving both from the Bodenstab

20 software?
21 A. Yes.

22 Q. That is an accurate statement of your

23 understanding?

A. That certainly is.And again, the original

And again, the original system just

1 number that is represented on player cards?

A. No.

2

Q. Do the cards that are used at

4 Mandalay Bay have a number on them?

5 A. The cards at Mandalay Bay have a -6 of course, the magnetic stripe that has, again, up
7 to 20 digits on it.

On the front of them, I believe they
have an 8- or a 9-digit decimal number, which I
think is the account number or what some like

11 Bodenstab might consider the account number.

12 As a modification of the system, it

As a modification of the system, it
wasn't installed originally on March 2nd, but on
some of our monitoring devices, we were showing
these 20-digit numbers, which didn't match what the
people in the casino were used to, and they asked
to us if we could show the number on the front of the
card.

And so, we asked Mr. Bodenstab, when he sent us the list of good cards, to also send us whatever was on the front of the card, and he did that.

And I don't know for a fact that that's been installed because I left Acres, but I think it is. And that's for visual purposes.

11

19

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1 got the one, but it was changed to get the other 2 for display purposes.

Q. Why was it changed for display 4 purposes?

A. We have a program called -- it's

6 basically a monitoring program that shows, for

7 instance, which cards are in or out of a machine.

8 and we were originally showing the 20-digit number.

9 which works just fine for us.

10 However, the customer said. "We would 11 prefer to see the number that is on the front of 12 the card which we can look at rather than what is 13 encoded on the mag stripe."

And so, we have no way of knowing 14 15 what is encoded on the front of the card unless the 16 player tracking system tells us. So we asked Tom

17 to send it to us, and he was happy to. Q. When you say, "send it to us,"

19 meaning send it to us instantaneously all the time 20 on the system?

A. No. What happens is that we talked 22 about this cash, this list of good cards, and we 23 said, you know, for each good card, please add in 24 whatever the display number that we should show. 25 ///

A. I don't recall anything.

Q. Have you had any contact with counsel

3 for Acres? A. I've talked to Jerry Haynes at least

5 once, I think once, and I've talked to, excuse me,

6 Jerry Riedinger?

MR. RIEDINGER: Riedinger, but 8 everybody gets it wrong. Don't worry about it.

THE WITNESS: Riedinger as well.

10 BY MR. DOWELL:

Q. When did you have a conversation with

12 Mr. Haynes?

A. The first thing I did after I was

14 subpoenaed -- actually, I think I was subpoenaed

15 on a Sunday, well, Monday during working hours, I

16 called him up Monday to let him know that I was 17 subpoenaed.

Q. What was his reaction? 18

A. He already knew, of course.

Q. What did you discuss with Mr. Haynes 20

21 at that time?

22 A. I don't believe we had a real

23 substantive conversation at that point. It was

24 probably a five-minute phone call,

25 five-or-ten-minute.

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(Exhibit 308 was marked for

identification.)

3 BY MR. DOWELL:

Q. Mr. Dempsey, I am going to mark as

5 Exhibit 308 a document titled "Statement of Martin

6 Dempsey."

I want to ask you some questions 8 about this, but before I do, could you describe

9 what you did to prepare for your testimony today?

10 A. Well, I hate to admit it, but this 11 morning, I got up very early and started looking

12 for documents. Pretty much nothing. I mean, I read

14 through this statement. I have a copy of it in one 15 of the documents I provided to you. Tried to, you

16 know, refresh my memory about this.

17 But I talked to my attorney 18 regarding, you know, deposition procedures, again 19 to refresh myself in such.

20 Q. Outside of the phone conversation you 21 and I had last week where I will represent that I

22 asked basically if you would be showing up -- I

23 should clarify for the record.

Did we really discuss anything other

25 than that?

Q. Did you discuss the subject matter of

2 what you might be asked about under the subpoena?

A. Oh, yes. I was very interested to

4 try and find out, you know, whether this was going

5 to be a short, little, you know, deposition or

6 whether I was going to be in for days. 7

Q. What were you told?

8 A. He told me pretty much expect a full

9 day.

10

15

18

25

Q. What else did he tell you?

A. He said that there had been other 11

12 depositions in the case. It was moving forward.

13 Q. Did he tell you anything about the

14 trade secret claim that CDS had made?

A. No. I did see a copy before I left

16 Acres of at least part of this complaint. I don't

17 know which part.

Q. Was there any discussion with

19 Mr. Haynes about what types of matters we would be

20 interested in, counsel for CDS, in asking you

21 about?

A. He assured me that we would probably

23 be discussing this statement.

24 Q. Anything else?

A. Not that I recall?

| | | | July 13, 177 |
|----------|---|-------------|--|
| | Page 89 | | Page 9 |
| 1 | Z. 110 100 30 100 | | 1 "the algorithm that CDS has used." What algorithm |
| 1 | Mr. Riedinger? | | 2 are you referring to? |
| 3 | | 1 | A. Well, again, I don't know what CDS is |
| 4 | | | actually suing for, but what I think it is is the |
| 5 | | | s algorithm that Jay Stone came up for optical cards |
| 6 | BY MR. DOWELL: | | that converts between the five bytes available on |
| 7 | Q. What did you discuss with | | optical cards and a compatible format on magnetic |
| 1 | Mr. Riedinger? | 8 | 3 cards. |
| 9 | · · · · · · · · · · · · · · · · · · · | 5 | () |
| | would be happening at the deposition, and he gave | 10 | that this was what CDS was suing about? |
| | me a broad overview and again told me that we would | 11 | S Francisco |
| | most likely be discussing this statement and my | | the complaint where it mentioned "card format," |
| | history, whatever I had done at Acres, whatever I | 13 | something about "card format." That seemed to be |
| 14 | had done at CDS. | 14 | what it was. |
| 15 | Q. Did he discuss the trade secret claim | 15 | C = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = |
| | that CDS had made against Acres? | | interfaces with the Bodenstab software through the |
| 17 | A. I don't know. I mean, about the card | 1 | BIF? |
| 1 | format thing? | 18 | A. The BIF program, yes, that's correct. |
| 19 | Q. Right. | 19 | Q. Is there a corollary interface in the |
| 20 | A. No. That was I knew that existed | 20 | CDS system? |
| 21 | F, | 21 | A. I don't understand the question. You |
| 22 | Q. How long was that conversation? | 22 | mean between CDS and what? |
| 23 | A. On the phone, I think, what, five | 23 | Q. Is there a corollary interface |
| | minutes? Maybe less. A couple minutes. | 24 | between the CDS system and the Bodenstab software |
| 25 | Q. Did you have any discussions with any | 25 | that CDS uses? |
| ļ | Page 90 | | Page 92 |
| | other employees or representatives of Acres about | 1 | A. I don't know. I never saw that |
| 2 | the deposition? | 2 | system. I'm not familiar with that. |
| 3 | A. Rich Schneider called me. It was | 3 | Q. What were the circumstances of your |
| | basically on some other matters, but I think we | 4 | completing this statement of Martin Dempsey that we |
| 5 | discussed the deposition as well. | 5 | have marked as Exhibit 308? |
| 6 | Q. What did you discuss with | 6 | A. Having seen the complaint, I think |
| | Mr. Schneider? | | relatively soon or, this section of the |
| 8 | A. I think he commiserated with me that | 8 | complaint that dealt with that algorithm relatively |
| | I was going to waste a day. | 9 | soon, I think, after CDS created it, I looked it |
| 10 | Q. What else? | | over to see, if, in fact, potentially could I have |
| 11 | A. That was about it. I mean, again, | | done anything wrong and very quickly came to the |
| | this is a pretty simple issue from my point of | | conclusion that, you know, everything that we did |
| | view. | | at Acres was absolutely aboveboard and |
| 14 | Q. What is a very simple issue? | | straightforward. |
| 15 | A. Well, the way the system works, the | 15 | At that point, I had already |
| | way the Acres system works, the way the CDS works, | | indicated to Mr. Haynes that I was leaving Acres, |
| t . | | | leaving the employment of Acres, and he suggested |
| | Even from the source code, this shouldn't take too | | if I completed a statement to that effect, that I |
| | long to figure out. | | felt that everything was, you know, on the |
| 20 | e: • | | up-and-up, that it would help Acres and asked me to |
| 121 | figure out? | 21 | do it. And I happily complied. |
| | • | | |
| 22 | A. As to whether the algorithm that CDS | 22 | Q. So Mr. Haynes suggested that you |
| 22 23 | A. As to whether the algorithm that CDS has used is anywhere in Acres' software. Just look | | should complete this statement? |
| 22 23 | A. As to whether the algorithm that CDS has used is anywhere in Acres' software. Just look | | • |

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1 of this deposition.

- Q. And so, this statement was provided
- 3 to Mr. Haynes, what, sometime around May 7th, 1999?
- A. I think that I probably pretty much
- 5 completed it on maybe May 5th and took a day or so 6 to check it over and make edits and finish signing
- 7 it on the 7th.
- Q. Looking at page 2, paragraph 11, it 9 says:
- 10
- "About three or four weeks 11 after Mandalay Bay opened, the 12
- management of Mandalay Bay asked whether the Acres system 13
- 14 could display to the casino
- 15 operators the 8-digit account
- 16 number embossed on the front of 17 a player tracking card when a
- 18 player inserts the card in a
- 19 gaming device."
- 20 Is that the incentive for making the
- 21 change to the Acres system, to get an additional
- 22 8-number code from the Bodenstab software that we
- 23 talked about earlier?
- A. Yes. It's my understanding it was a 24
- 25 client request.

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- Q. How did you hear about this client 2 request?
- A. Perry Waldner is the head player
- 4 tracking guy, and he was -- at that point, after
- 5 Mandalay Bay opened, he was going over to Mandalay
- 6 Bay on pretty much a daily basis to make sure that
- 7 everything was running correctly.
- And he came back, and that was one of 8 9 the feedback things he got from being over there,
- 10 that they didn't like the 20-digit number. They
- 11 wanted to see this other number.
 - Q. Did Mr. Walden say --
- 13 A. Waldner.

12

- 14 Q. Did Mr. Waldner say why Mandalay Bay
- 15 wanted to see that?
- 16 A. We didn't discuss it in detail. It
- 17 seemed an obvious request.
- 18 Q. Why was it obvious?
- A. Well, because the 20-digit numbers,
- 20 which is encoded on the mag stripe, is everything I
- 21 need as a computer person, but without a Track 2
- 22 card reader, it's very hard to see what that is.
- As far as the average person walking
- 24 around on the floor of Mandalay Bay, if they wanted
- 25 to see a customer, the number when they physically

- 1 looked at a card with their eyes would be this
- 2 8-digit number.
- So it seemed obvious that they would
- 4 like to see that rather than this other number they 5 didn't know about.
- Q. Did Mr. Waldner say if the people at
- 7 Mandalay Bay wanted to see that 8-digit number
- 8 because CDS in its system could show the 8-digit
- 9 number?

10

11

19

25

- A. He didn't actually mention that.
 - Q. Any mention of CDS by the people at
- 12 Mandalay Bay to Mr. Waldner, as far as you know?
- 13 A. Oh, that would be hearsay, but I
- 14 mean, not that I know of.
- 15 Q. So did you have a conversation with
- 16 Mr. Waldner after he came back from Mandalay Bay
- 17 about making this change to display the 8-digit
- 18 account number?
 - A. Yes. Perry worked in the next
- 20 cubicle over from me, so I talked with him
- 21 frequently.
- 22 And it turned out, in one particular
- 23 case, that my program had to be adjusted to send
- 24 this 8-digit number out.
 - And so, he asked me, in the packet,

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- 1 the network packet that I was sending to the
 - 2 software that displays this for the operator, that
 - 3 I should get it out of this database field instead
 - 4 of that one.
 - Q. How long after the time Mr. Waldner
 - 6 talked to Mandalay Bay did you have this
 - 7 conversation?
 - A. I think it probably took Acres a week
 - 9 or so to implement it in our lab. So, I mean, I
 - 10 would assume this all happened over, you know, a

 - 11 very short period of time.
 - 12 Q. In any conversation during this week
 - 13 with Mr. Waldner, do you recall any mention of CDS
 - 14 or the CDS system and its -- well, let me leave it
 - 15 at that.

20

- 16 A. No. I mean, this was the Acres
- 17 system we were dealing with over there. I mean, I
- 18 don't think it hurt us that it mattered whether CDS
- 19 did it the same or different.
 - Q. Was there any mention at all of
- 21 whether CDS did it the same way?
 - A. No, not that I recall.
- 23 Q. Was there any discussion of the
- 24 fact -- of the point that you testified to earlier
- 25 that CDS uses this binary number rather than

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1 receiving the 8-digit number from the Bodenstab 2 system?

- A. Could you just repeat that, 3
 - Q. Yes. Let me try that again.
- A. Or rephrase it. Whatever you want to 5 6 do.
- 7 Q. After Mr. Waldner had talked to
- 8 Mandalay Bay, and during the time that the 8-digit
- 9 number was being implemented on the Acres system,
- 10 was there any discussion of the algorithm that CDS
- 11 used in its system?
- 12 A. No.
- 13 Q. Any discussion of using a binary
- 14 number or doing any kind of conversion in the Acres
- 15 system rather than receiving the 8-digit number
- 16 from the Bodenstab software?
- A. Well, I mean, having worked at CDS, I 17
- 18 know that such an algorithm exists on the CDS
- 19 system, but I have no indication that Bodenstab is
- 20 doing such a conversion.
- 21 I don't know that you can take the
- 22 20-digit number and turn it into the 8-digit
- 23 number. They may be completely random, for all we
- 24 know.
- 25 And again, without me spending hours

Q. Did Mr. Powers, when he gave you

- 2 these documents, say what he was giving them to you 3 for?
- A. He gave me these documents along with
- 5 a bunch of others, which was all sorts of player
- 6 tracking sort of stuff. Stuff relating to how we
- 7 did things with IGT, this CDS stuff, and stuff that
- 8 he had developed on his own as to how he would want
- 9 a player tracking interface to go.
- 10 This was just before Mr. Waldner was
- 11 hired and took over this responsibility, and he
- 12 said, "You know, we've got to come up with a method
- 13 to make our system, which currently doesn't do
- 14 player tracking at all, talk to a player tracking
- 15 system. And will any of this help?"
- 16 Q. So what other type of stuff was in
- 17 this information, especially the stuff relating to
- 18 how you did things with IGT?
- 19 A. For instance, one of the things that
- 20 was documented in there was the messages that we
- 21 got from the Acres SMIB, which we currently used
- 22 with IGT that discussed, you know, how we
- 23 calculated points, how -- all of these player
- 24 tracking sort of things. What came up from the
- 25 floor.

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- 1 to try and reverse engineer it and see if I could
- 2 remember what I did at CDS, I would have no way of
- 3 knowing if there was a correspondence.
- So, you know, the easy thing to do
- 5 was say: He puts the number on the front of the
- 6 card, he obviously knows it. Just have him send it
- 7 to us.
- 8 Q. On paragraph 12 on page 3.
- 9 A. Yes.
- 10 Q. It says:
- 11 "Sometime in 1998, Mr. Pat
- 12 Powers of Acres gave me two CDS
- documents: Oasis- AS/400 13
- 14 interface, dated September
- 15 1996, and Engineering
- Specifications for the Oasis 16
- II Bodenstab AS/400 interface 17
- 18 dated June 29th, 1998."
- 19 So Mr. Powers gave you these two
- 20 documents sometime in 1998?
- 21 A. That's correct.
- Q. So it would have been after you 22
- 23 started at Acres in September '98?
- A. That's correct. Actually, I believe
- 25 my start date technically was August 31st.

And the idea was then to take that

- 2 and pack it up in such a way and ship it off.
- Q. What did the CDS documents show
- 4 relative to the work that was being done?
 - A. Obviously, in computers, everyone
- 6 tries to avoid doing useless extra work, and if I
- 7 had an interface, if I was Mr. Bodenstab and had an
- 8 interface to CDS, and I was going to interface to
- 9 other player tracking systems, I would hope they
- 10 all used the same interface rather than, you know,
- 11 having to develop six copies.
- 12 And so, I assumed that Mr. Bodenstab
- 13 probably wanted us to do it the way that he already
- 14 did it, but I didn't like the way it was done.
- 15 Q. You didn't like the way what was 16 done?
 - A. In this Bodenstab interface that
- 18 apparently existed, that was documented in these
- 19 documents, there were what I felt were weaknesses
- 20 that would make it unsuitable for our use as an
- 21 interface.
- 22 MR. DOWELL: I see we are at 5 after
- 23 12:00. Why don't we break for lunch.
- 24 (A luncheon recess was taken
- 25 from 12:05 p.m. to 12:53 p.m.)

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EXAMINATION (RESUMED)

2 BY MR. DOWELL:

Q. Mr. Dempsey, before the break, we

- 4 were talking about the way the Bodenstab software
- 5 interfaced with a system, and you said, "If I was
- 6 Mr. Bodenstab and had an interface to CDS and I was
- 7 going to interface to other player tracking
- 8 systems, I would hope they all used the same
- 9 interface rather than, you know, having to develop

10 six copies."

11 Based on that, you assumed,

- 12 "Mr. Bodenstab probably wanted us to do it the way
- 13 that he had already done."
- Is that correct?
- 15 A. Yes.
- 16 Q. Was there any indication, other than
- 17 your assumption, that Mr. Bodenstab wanted you to
- 18 use the same interface to his software module,
- 19 based on statements you heard from someone else or
- 20 any other resource?
- A. I didn't speak to Tom about this
- 22 directly, but the reason that I said that is that I
- 23 got that feeling from Pat that, you know, Pat knew
- 24 we were supposed to have this done in a short
- 25 period of time and felt that there would be

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1 pressure to not reinvent the wheel, to use what was 2 there.

3 I don't know why he felt that way.

- 4 You know, we didn't discuss it in detail.
- Q. When you say, "why he felt that way,"
- 6 meaning why you should use the same interface that
- 7 had been used before?
- A. No. Whether he felt there would be
- 9 pressure, whether it was from Tom directly or from
- 10 his bosses to get it done in a hurry or what.
- 11 Q. You didn't know what the source of
- 12 the pressure was to get it done in a hurry?
- 13 A. Well, I knew the source of the 14 pressure. The casino was opening on May --
- 15 March 2nd. So in order to get things submitted to
- 16 Gaming and in time be tested in a trial test bed
- 17 and be approved before March 2nd, of course, there
- 18 was pressure to get everything done in a hurry.
- But I don't know what specifically in
- 20 terms of the player tracking, what the deadlines
- 21 and stuff that, you know, he got from his
- 22 superiors.
- 23 Q. You came on right around the first of
- 24 September with Acres.
- 25 A. Yeah.

O. So it was sometime after that that

- 2 you began having these discussions with Mr. Powers
- 3 about the interface with the Bodenstab software?
- A. At that time, we didn't know it was
- 5 going to be the Bodenstab software.
 - When he first talked to me about it,
- 7 we knew we were going to have an interface to some
- 8 player tracking system and that Circus would be
- 9 choosing someone to do the player tracking part of 10 it. And it wasn't us.
- 11 So the first couple meetings
- 12 regarding player tracking, it was, you know, we're
- 13 going to need some kind of generic interface, you
- 14 know, just make the player tracking basics such
- 15 that we can hook to whomever Circus chooses. And
- 16 then, over time, Circus apparently chose
- 17 Mr. Bodenstab.

19

24

5

- Q. Do you know when that occurred?
 - A. You know, I don't.
- I will say that I think the contract 20
- 21 was signed very late. That would be something you
- 22 should talk to Tom about.
- 23 O. Tom Bodenstab?
 - A. Yeah.
- 25 O. From the time that Acres was notified

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- 1 that Circus Circus had selected the Bodenstab
- 2 software, it was a relatively short period until
- 3 Acres had to get the interface up and running to
- 4 that software, correct?
 - A. Yeah.
- Q. And so, there were time pressures
- 7 because the Mandalay Bay casino was opening?
- A. That's correct.
- Q. Just to clarify for the record,
- 10 Circus Circus is the parent company for Mandalay
- 11 Bay?
- 12 A. That's correct. Actually, I believe
- 13 they might have changed their name, but Circus
- 14 Circus is what they were known as at the time.
- 15 Q. So when you say Circus Circus was
- 16 making the selection about Bodenstab, you are
- 17 referring to the company that was running Mandalay
- 18 Bay?

- 19 A. Yes. It was my understanding that
- 20 the owners of Mandalay Bay who choose who they
- 21 wished to use.
 - Q. What other options did they have for
- 23 player tracking software?
- A. Well, one of them that I guess they
- 25 chose not to use, the original one was IGT. The

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1 Acres system originally was designed to use IGT was

2 the player tracking back end software, and I guess
3 that for whatever reason, they choose not to do

- 3 that, for whatever reason, they chose not to do 4 that.
- Q. Did you ever hear, from any source,
 why Circus Circus chose the Bodenstab software for
 its player tracking capabilities?
- B A. No.
- 9 Q. No one at Acres ever discussed why 10 that was selected versus the IGT system?

11 A. I remember hearing that they were 12 unhappy with IGT, but again, this is high-level 13 finance, management negotiations above my -- above 14 my place.

15 Q. You remember hearing that who had 16 discussed that?

17 A. Oh, I think that -- when I'm talking
18 about these things that happened in management, I
19 would be hearing these from Pat. You know, and Pat
20 would have probably said to me something, and I am
21 going to say as close as I can remember, something
22 like, "Circus doesn't want to use IGT."

Q. Did he ever say why they didn't want to use IGT?

25 A. I think they just didn't like them.

1 decision had been made to do it, you know, with

2 SQL. And that was my job to do it with SQL. If I

3 recommended not to do it with SQL, they might not 4 have needed me.

- Q. What is Perry's last name again?
 - A. Waldner.
- Q. When did he start at Acres?

8 A. I believe he started roughly within a 9 month of me.

10 Q. So sometime around late September 11 '98?

12 A. Again, you know, to the best of my 13 recollection.

Q. Where had he worked before Acres, if 15 you know?

A. He was from North Dakota, and he is relatively young. And I'm not sure of his background, but he's quite good with Windows programming. I will give him a recommendation as a

19 programming. I will give him a recommendation as a 20 programmer.

Q. Do you know if he had been in the gaming industry prior to coming to Acres?

A. I don't believe that he had been. He certainly hadn't worked with me at any of the companies that I had worked with, nor had I heard

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- 1 but I mean, I don't --
 - Q. The function or the personalities?
- 3 A. I think all.

2

25

- 4 Q. Did you ever hear -- you mentioned
- 5 earlier about something being hearsay. We
- 6 understand that, and we will deal with that as 7 necessary.

Did you ever hear about any of the functions about the IGT system that Circus Circus didn't like?

11 A. No. You know, at the time I was 12 there, the decision to not use it was done. 13 I mean, you know, Pat was developing this as a

14 replacement. So, I mean, that wasn't something we 15 talked about.

Q. Did you ever make a recommendation or have a conversation -- let me stick with that.

Did you ever make a recommendation
that the IGT system be used simply because it had
been used in the past with other Acres systems?

21 A. Well, I actually have no experience
22 with the IGT system at Acres. I mean, you know,

23 when it was used with Acres, I wasn't working 24 there.

And by the time I got to Acres, the

- 1 his name in my time in Las Vegas.
- Q. And his primary responsibility was to develop the Bodenstab interface?
 - A. Yes.
- 5 Q. Do you know if he had access to these
- 6 Oasis documents referred to in your statement?
- A. I don't know for certain, but 8 probably he saw them because when the player
- 9 tracking task was turned over to him, you know,
- 10 most likely, I handed him anything I could deal 11 with.

Probably he gave them back to me

13 because he thought they were not useful too, but I 14 am not certain whether I actually did give them and

15 he gave them back or not. They were in my desk.

16 Q. They were in your desk when? At the 17 time you signed your statement?

18 A. Yes. When I was preparing to leave 19 Acres and I started cleaning out my desk, that was 20 one of the things that I came across in the back,

21 in the historical player tracking folder.
22 Q. What did the two Oasis documents show
23 with respect to interfacing with Bodenstab?

A. The one document was very useless to me, and it basically described how to run the

1 AS/400 software, you know, how to start it and stop 2 it and such, which didn't help me at all. The other document, or at least an 4 appendix of it, showed some of the structure of the 5 packets, the information going back and forth 6 between the two systems, and you know, we could 7 have used any kind of packet to send the 8 information back and forth. And, you know, an 9 obvious choice would be one the Bodenstab system 10 could understand. 11 But as I say, the packets that were 12 used, I felt, had some real limitations.

Q. I remember you mentioned something 14 along those lines before lunch. I want to come

15 back to that in a minute.

Can you tell looking at paragraph 12 17 which of the documents is the one you are referring 18 to that, you said, was useless to you, and one had 19 the structure of the packets?

20 A. Oh, jeez. If you would put the 21 documents in front of me, I certainly could.

Q. I will give you a document that was 23 previously marked as Exhibit No. 453 at the Spencer 24 deposition. So we will just stick with that

25 designation.

6

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1 document No. 23-00171-00 and is dated September of

2 1996. That extends through production page

3 3006359.

And then, in this material marked as 5 Spencer Exhibit 453, the next page is production

6 No. 3006319, which is document number -- which is

7 CDS document No. 23-00020-9, dated July 14th,

8 1998.

14

25

And then, the next document begins 10 with production No. 3006309 and goes through 11 3006316 and has CDS document No. 23-00287-00 and is 12 dated June 29th, 1998.

Three separate documents. 13

MR. DOWELL: I agree completely.

15 Do you recall from the Spencer

16 deposition if these were all one exhibit? MR. RIEDINGER: I made a similar

18 statement at the Spencer deposition.

THE WITNESS: You know, and if I can

20 interject, this makes it rather hard for me. This

21 is not what I handed Jerry.

22 BY MR. DOWELL:

Q. To the extent it disables your 23 24 testimony, we'll make a note of it.

A. Okav.

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Q. Is this the Oasis AS/400 interface 3 document, dated September '96, that you are 4 referring to in your statement? 5

A. Give me a second.

A. Okay.

Q. Okay. Certainly.

7 MR. RIEDINGER: For the record, I

8 object to whether the document is connected. MR. DOWELL: Just to address that, I

10 assume you mean the fact that it's out of order in

11 Bates number range?

12 MR. RIEDINGER: No. The fact that 13 it's plainly two separate documents that have been

14 stapled together. Actually, three separate

15 documents that have been stapled together.

16 The first document having one date 17 and a particular document number attached. The 18 rear is a second document having a different date 19 and a different document number. And then, a

20 separate document review number, having yet another

21 date and yet another document number.

22 MR. DOWELL: Can you identify what 23 you are talking about with Bates numbers?

MR. RIEDINGER: Sure. The first

25 document begins with Bates No. 3006319. It has CDS

Q. We have previously, for whatever

2 reason, and I don't know why, three documents have,

3 in fact, been collected together and marked as an

So we will just leave them together.

6 We have already got this on the record, and we will

7 talk about them as separate documents. Just assume

8 that they are stapled together not to identify them

9 as one document but just for administrative

10 purposes.

4 exhibit.

Is the first document, the document

12 numbers on top which are 3006319 through -59, the

13 September '96 document you are referring to in your

14 statement?

15

A. Are you asking me?

16 Q. Yes.

17 A. Where is -59?

18 Yeah. I mean, I think this was

19 originally a separate document, and it looks to be

20 similar to what I handed Jerry.

21 Q. Was this the one that you found was

22 found to be useless, or was it the one that you

23 had -- that had the structure of the packets?

A. Well, this was the useless one, and 25 if you look at the page that has 3006329 on it,

8

9

10

15

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| | | | _ | |

1 this talks about the operation of the AS/400 side

- 2 of the interface. And honestly, I could care
- 3 less. I don't care what the heck is out there.
- 4 I don't care how to stop it. That's, you know, the
- 5 Bodenstab or the casino's responsibility.

I want to know what it talks, you

7 know, what I look to. And so this didn't matter.

Again, I think this is probably the

9 separate document, which would be starting with

10 page 3006309, although I think it had some kind of

11 header or front page in front of it that seems to

12 be missing. There's at least a couple pages that

13 do seem to be missing.

But this is -- this is what I

15 believe was, to the best of my knowledge, the other

16 document.

17 And the first problem is on page

18 3006319 where it talks about the APPC protocol.

The APPC protocol is an IBM

20 proprietary interface that works very well with the

21 AS/400, and my job at Acres was to build a player

22 tracking interface that, while now it may be used

23 with Bodenstab, it's to, you know, in general be

24 used with any number of make tracking systems.

25 Again, we didn't want to make six of them.

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- Q. Right.
- 2 A. And if we had, for instance, tried to
- 3 do this and used the APPC protocol, it would have
- 4 made it impossible for us to attach to the majority
- 5 of other systems out there. It would have limited
- 6 us to the IBM world.
- The message formats start on page
- 8 3006312, and there's any number of messages that
- 9 look like they could be used to try and synchronize
- 10 two databases.
- The problem with this is we didn't
- 12 want to synchronize two databases and worry about
- 13 dealing with them getting out of sync and dealing
- 14 with maintenance. We wanted the database to rest
- 15 on the player tracking side, and we just wanted to
- 16 get information regarding cards and sufficient as
- 17 to whether they were valid or not.
- 18 And at that point, I closed the
- 19 document.

23

- Q. So you determined after that review
- 21 that the information shown in here wasn't what you
- 22 wanted to do with the interface?
 - A. That's correct.
- 24 Q. Help me with what interface we're
- 25 talking about.

- 1 make this interface, you know, simple,
- 2 straightforward, and easy to use and not lock it

A. This is, you know, the interface that

2 we would be using on the Wizard system to talk to a

Q. So this is the programming that would

THE WITNESS: Jerry, could I get a

MR. RIEDINGER: It's covered by the

THE WITNESS: Acres right now is

And so, you know, in the future, any

11 clarification here? Am I allowed to talk about

16 developing its own player tracking system, and

20 casino could either choose to use Bodenstab or

21 choose to use Acres proprietary, or because we

22 programmed it portably, any other person's player

So it was very important for us to

23 tracking system that would meet these minimum

17 they're using the same BIF interface. They're not

12 Acres proprietary information as well?

3 player tracking system.

7 be in the BIF?

A. Yes.

Q. Okay.

14 protective order as well.

18 rewriting a single bit of it.

O. Is this the BIF?

A. The BIF. In effect, the BIF.

- 3 into, say, an AS/400.
- 4 BY MR. DOWELL:

24 standards.

- Q. And so, is it accurate to say that
- 6 when you looked at the interface specifications for
- 7 the CDS system --
- A. Well, I would refer to this as the
- 9 interface specifications for the Bodenstab system.
- 10 Q. When you looked at the interface
- 11 specifications for the Bodenstab system, did it
- 12 appear that it was not generic enough to your
- 13 taste? Is that accurate?
- A. Overly complicated, fragile. You 14
- 15 know, not robust.
- 16 Q. I understand what you mean by that.
- 17 Okav.
- 18 And so, your goal, then, was not to
- 19 make something like this but to make something that
- 20 was more robust and less complicated?
- A. Right, that would work for, you know, 21
- 22 all of our player tracking interfaces.
- 23 Q. But did you still have to make
- 24 something that would interface with the Bodenstab
- 25 system?

A. Well, the AS/400 has come a long way 2 from this kind of technology, and as part of IBM's

3 E Commerce Initiative, they have made the AS/400

4 work like what I would refer to as a normal

5 computer. It will talk now normal standard network 6 protocols.

And so, since we wished to use 8 standard protocols and since the AS/400 now 9 supported them, we felt that that would be the 10 direction we would take, with the AS/400 and 11 Mr. Bodenstab as well as anybody else.

Q. You may have answered my question, 12 13 but I don't understand how your response answered 14 my question.

15 I was saying: Was your goal still to 16 have something that would interface with the 17 Bodenstab software?

A. It wasn't my problem that Tom had to 19 work to do it in a better way.

20 As long as Pat and the powers that 21 be, you know, would back me up, I would show him 22 how to do it right.

If someone had told me, "No, it must 24 be done the way he already does it," I would have 25 done what they told me.

> Page 118 Q. So how did it ultimately come out?

2 Did Bodenstab make changes?

A. Yes.

MR. RIEDINGER: That's two questions.

5 MR. DOWELL: Okay.

MR. RIEDINGER: Which question are 7 you asking?

8 BY MR. DOWELL:

Q. Did Bodenstab ultimately make 10 changes, then, to his software to link up with the 11 Acres system?

12 A. Well, I never actually saw this run. 13 but I know that Tom through System Source did it 14 the way we suggested.

Q. So would you say that the interface 15 16 between the Bodenstab software and the Acres system 17 is different from the interface between the

18 Bodenstab software and the CDS system?

A. It's certainly different than this 20 document. If this document describes the interface

21 to the CDS system as implemented, then it would be 22 different.

Q. Is this document you were referring 24 to what we had marked as Spencer 453?

A. Yes.

O. Is your understanding of the

2 interface between the CDS system and the Bodenstab

3 software limited to what you read in this document?

Q. You didn't work with that when you

6 were at CDS?

A. No. In fact, so far as I know, it

8 was developed after I left.

Q. What in the interface in the Acres

10 system is the same as what is shown in these

11 documents that we have marked as Exhibit 453?

12 MR. RIEDINGER: Objection. Assumes

13 facts not stated.

15

14 BY MR. DOWELL:

Q. Let me back up one.

16 Are there any similarities between 17 the interface developed for the Acres system with

18 the Bodenstab software and what is shown in the

19 document we marked as -- the collection of

20 documents we marked as Exhibit 453?

21 A. The first part that used to be a

22 separate document that I labeled as useless that

23 describes the AS/400 side of things, I've never

24 seen Tom's side of things. As I said, I didn't

25 particularly care. So I don't know if any part of

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1 that is similar or not.

2 As far as the back part, which,

3 again, starts with page 3006309, the engineering

4 specifications -- well, I mean, with the exception

5 of some of the fields like "last name" being common

6 to both messages, I don't believe there's really

7 any other correspondences.

In fact, here, where there's one,

9 two -- here, where it shows eight different

10 messages, the Acres system only uses three.

11

Q. What are you referring to?

A. Pages 3003612 through pages 3006316

13 describe eight messages, whereas, the Acres system 14 only uses three messages.

15 Q. That is a difference, assuming that 16 is true.

17 What similarities can you identify?

18 A. As I said, about the only thing

19 that's similar, in some of our messages, which are

20 different, we have a field called, "Say last

21 name."

12

22 Although, trust me, I knew we needed

23 to put "last name" in before I saw this document.

I mean, we also used packets, network

25 packets, to talk back and forth, as is common.

| Page 1. | 2 | 1 |
|---------|---|---|
|---------|---|---|

I don't see any other similarities. Again, there is an Acres document 2 3 that describes the Bodenstab-to-Acres interface.

4 and again, a software expert could compare these

5 two very easily.

Q. And not believe that there was a 7 corollary between the two?

A. I don't think he would find anything 9 in common.

Q. Is the structure of the packets 11 anywhere the same?

12 A. No. In fact, as I said, instead of 13 using eight packets, we used three completely 14 different packets that have different means.

15 And the task that the interface does 16 is completely different. Instead of trying to

17 synchronize two databases, the Acres system has a

18 player card that just has the valid card sort of

19 information we need, the minimum.

20 One of proprietary advantages of the 21 Acres system is that if the player card is ever

22 completely blown away, without any human

23 intervention, it will recover. The Bodenstab

24 system or any other player tracking system

25 implementing that interface will refill the card.

1 assumes facts not in evidence, certainly.

In fact, the CDS number, based on my 2

3 knowledge of working at CDS, does not use a

4 20-digit number.

5 BY MR. DOWELL:

Q. Does it use an 18-digit number with

7 stops?

A. I think so.

Q. Does the Acres system use an 18-digit

10 number with stops?

A. The Acres system is variable. It

12 will use any legal Track 2 value, from 1 digit to 13 20.

Q. What does it actually use, though?

15 A. Whatever the player tracking system

16 sends.

14

25

It can use mixed. Some can be 4

18 digits long, some can be 10, some can be 18, some

19 can be 20.

20 Q. At Mandalay Bay, what does it use?

21 A. From the last time I was at Mandalay

22 Bay, which, of course, was when I was still

23 employed at Acres, it looked like the information

24 that Tom Bodenstab was sending us were 18 digits.

Q. So that was the same amount of digits

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1 causing it no problems.

Q. So under the Acres system, the

3 Bodenstab software doesn't receive information from

4 the list of players to update the Bodenstab list?

A. That's correct. In effect, it's sort

6 of one-way data transfer.

He sends us information to expect

8 like card numbers and last names, and we send him

9 what we call completed rating records, which is,

10 you know, a card went in, a card came out, here's

11 how much play occurred.

12 So for instance, there is no delete 13 player message that I know of on our side.

There's no jackpot debit message.

15 There's no jackpot credit message. There's no

16 change primary OCR number message. There's no

17 account number information change.

18 There isn't even the concept of a

19 primary player. 20

Q. How is it that both the CDS system 21 and the Acres system both came to use a 20-digit 22 number?

MR. RIEDINGER: Objection. Lack of 24 foundation on the reference to "the CDS system."

THE WITNESS: Actually, I would say

Page 124 1 as what the CDS system had used, to your knowledge?

A. To my knowledge, the length of the

3 numbers were the same.

Q. You may object to this one as well.

5 The Mandalay Bay 20-digit numbers --

6 A. Up to 20. Up to 20, let's say.

Q. -- or the 18-digit numbers converts

8 to a 10-digit number in the same way that the CDS

9 system does the same conversion? 10

A. Oh, no.

11 Q. Assuming that is true --

12 A. No. Let me explain this a little

13 more clearly.

14

We take at Acres when we are

15 converting up the up-to-20-digit number into 10

16 digits, we take each of the -- two of the 20

17 digits, and we pack them into one byte. And when

18 we unpack them, we take the first byte and turn it

19 into the first two digits and just follow through

20 the packet.

21 The CDS algorithm is way more

22 complicated. Stuff shifts around. There's

23 imbedded check sums, imbedded site numbers, the 24 going from 18 digits to 5 digits is actually quite

25 hard.

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| 25 |
|----|
| |

- 1 Q. You know what, I might have misspoken 2 and not been clear.
- As I understand it and I am
- 4 subject to correction. I understand that if you
- 5 take the 20-digit numbers that come off a card that
- 6 is usable at Mandalay Bay, and you run the process
- 7 that CDS uses in its system on that 20-digit
- 8 number --
- A. To convert it to a five-byte number?
- 10 Q. No, to convert it to the player
- 11 number that you see on the card.
- 12 A. Okay.
- 13 Q. You get the same number that you
- 14 would if you used the CDS algorithm.
- 15 My first thing: Do you understand
- 16 what I am saying?
- 17 A. No. Would you try that again.
- 18 Q. As I understand it, you can pull a
- 19 20-digit number off the stripe on the back of the
- 20 card?
- 21 A. Okay. Yeah.
- Q. On the front, there is, I think, a
- 23 10-digit player number?
- 24 A. Okay.
- 25 Q. CDS as an algorithm, in fact, you are

- 1 they are, and apply the CDS algorithm to that.
- 2 It's not something you can do by hand, with pencil
- 3 and paper, and I can't do that without the CDS
- 4 algorithm.
- 5 BY MR. DOWELL:
 - Q. What I am asking -- this has gotten
- 7 kind of bogged down because I am asking you to
- 8 assume this. I know you haven't tried to make this
- 9 conversion.
- 10 If this is true --
 - A. Okay. If they're using CDS numbers,
- 12 and there's a conversion between the two that's
- 13 similar to what I know of from my work there?
- 14 Okay.

11

15

- Q. Right.
- 16 A. Go from there.
- 17 MR. RIEDINGER: I am objecting to
- 18 this as hypothetical.
- 19 MR. DOWELL: Right.
- 20 BY MR. DOWELL:
- 21 Q. Can you explain why there would be
- 22 that same relationship between the 20-digit
- 23 magnetic number on the back of a Mandalay card with
- 24 the player number on the front, as there is between
- 25 the same two numbers on the CDS cards?

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- 1 familiar with the CDS algorithm that will convert
- 2 between those two numbers?
- 3 A. Yes. I don't know that Tom is
- 4 actually using that algorithm at Mandalay Bay,
- 5 though.
- 6 Q. I don't want to assume anything more
- 7 than I have to in my questions.
- 8 My question is, as I understand it,
- 9 if you take a Mandalay Bay card and you pull that
- 10 20-digit number off the back, and you apply the CDS
- 11 algorithm, whatever it is, you will come up with
- 12 the same player number on the front of the card
- 13 that is shown there?
 - A. That's certainly true at a CDS
- 15 casino, that there's a way to go from the 18-digit
- 16 number to the account number.
- 17 Q. As I understand it, at Mandalay Bay,
- 18 there is the same relationship between the 20-digit
- 19 number on the back and the 10-digit number on the
- 20 front?
- 21 MR. RIEDINGER: Objection. Assumes
- 22 facts not testified to.
- 23 THE WITNESS: The only way to
- 24 determine that would be to take the 18-digit
- 25 numbers and the 8-digit numbers or 9 or whatever

- A. Oh. I mean, I don't know that there
- 2 is. There's no need to be.
- 3 Q. Okay. That's true.
 - Assume that there is, and this is a
- 5 fact that is not presented here for you other than
- 6 my words, which are not evidence and mean nothing.
- 7 Assuming that is true, is there a
- 8 reasonable explanation for that, that you are aware
- 9 of?
- 10 MR. RIEDINGER: Same objection.
- 11 Hypothetical.
- 12 THE WITNESS: The CDS algorithm is
- 13 relatively screwy. It is a very unique algorithm
- 14 that was designed for optical cards.
- For someone to independently develop
- 16 that for use on magnetic cards would be wrong.
- 17 I mean, it's not the best algorithm for magnetic
- 18 cards.
- 19 So if it were the same as CDS,
- 20 hypothetically, I would assume that someone would
- 21 have had to have seen or understood the CDS
- 22 algorithm.

- 23 BY MR. DOWELL:
- 24 Q. Someone at Acres?
 - A. No. Acres doesn't know -- the two

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1 numbers come down from Bodenstab's side of things,

2 and so, if the conversion between the two, if you 3 can match these two and the CDS algorithm works,

- 4 wherever they are being produced would have to have
- 5 that algorithm.
 - Q. Where are they being produced, then?
 - A. Somewhere upstream. Perhaps the
- 8 Bodenstab system. But, again, I only know what 9 comes to Acres.

10 You know, if someone is creating a 11 card, and when they create the card, they put the

- 12 8-digit number on the front and the 18-digit number
- 13 on the back, and if that matches what CDS did, I 14 would assume that they're using CDS's algorithm.
- Q. But you have no knowledge of where 16 that use would be occurring, if it is?
- A. If it is, I know it would be on the 17 18 other side of BIF.
 - Q. On the Bodenstab side of BIF?
- A. But, you know, for instance, all 20
- 21 these systems, various systems, can hook to each 22 other.
- I truly, honestly don't know whether 24 there's not another system on the other side of
- 25 Tom's that could be sending him these numbers or,
 - Page 130

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- 1 you know, who knows. Q. Would you agree that that algorithm
- 3 that makes the 20 to 10 conversion that we talked
- 4 about at CDS, that is proprietary to CDS?
- A. I think I misheard you. 5
- You said 20 to 10? 6
 - O. 18 to 10?

19

7

- A. If it's CDS, you mean 18 to 5.
- Q. Okay. Let me scratch this line and 10 try again.
- What I am referring to is the 12 relationship between the magnetic number on the
- 13 back of a CDS card and the player number on the 14 front.
- 15 Are you aware of an algorithm that 16 expresses or converts between those two numbers?
 - A. From my work at CDS, yes.
- 18 Q. Would you agree that that algorithm
- 19 is proprietary to CDS?

22 how to do that.

- 20 A. I would assume since Jay Stone made 21 it that no one on the planet besides CDS would know
- Q. In your statement, paragraph 13, you
- 24 said that -- did you write this statement?
 - A. Yes. I had it on my computer and

- 1 edited it.
- 2 Q. Did you write it all from scratch, or
- 3 did anyone assist you?
- A. I am not certain where some of the
- 5 original concepts came from.
 - It could be that -- I think I
- 7 started out verbally dictating it, and then I got
- 8 it back written.
- Q. Did anyone assist you with the topics
- 10 to cover?

11

- A. Not that I recall.
- 12 I pretty much - having looked at
- 13 that page of the complaint, I pretty much in this
- 14 statement tried to explain, you know, where it came
- 15 from and why I didn't think it was a problem.
 - Q. And so, you wrote it all on your own
- 17 based on what you had read?
- 18 A. As I say, I think I started dictating
- 19 it, and then, I polished it on the computer.
- 20 Q. But with no one else serving in an 21 editorial function?
- 22 A. Well, I mean -- I mean, the original
- 23 conversation happened in Jerry Haynes' office, when
- 24 he asked me about this complaint.
- 25 Q. Since the time you left Acres, has
- 1 anyone talked to you about your giving testimony at 2 or on behalf of Acres?
- 3 A. No. In fact, I'd rather not.
 - Q. In the last paragraph, No. 13, it
- 5 says:
- "While employed by Acres, I 6
- 7 have never used I think CDS
- confidential information for 8
- 9 any purpose related to Acres
- 10 business."
- 11 What do you understand CDS's
- 12 confidential information to encompass, or how do
- 13 you define it?
 - A. While I was at CDS, there were a
- 15 bunch of algorithms, let's say, a bunch of
- 16 processes that CDS explained to me were -- that
- 17 they thought were unique in the industry, and
- 18 served, you know, some value to them, and that's
- 19 what I consider it to be their confidential
- 20 information.
- Q. In the software field, in your 21
- 22 business, is it pretty clear what is proprietary
- 23 and what is not, or is it a pretty gray area?
- A. Everywhere but Las Vegas, it's a
- 25 pretty clear area, pretty clear distinction.

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In Las Vegas, there's an awful lot of 2 people who use techniques that are public knowledge 3 that if they developed them, even though they're 4 public knowledge and other people have developed

5 them, sometimes consider them proprietary.

I have been surprised at a number of 7 companies that have asked me to sign nondisclosure 8 agreements for stuff that's in every bookstore.

Q. Can you give me an example of 10 something generic enough that a layman would

11 understand? A. Sure. If we take a look at this 12

13 document here, and we go back to the engineering 14 section, which is page 3006313, you see that every 15 packet starts with something called an STX, and it 16 ends with something called an ETX, and then, it has 17 a checksum.

18 And protocols all over the world use 19 this. TC/IP has used this. Every TC/IP has a 20 start and an end and a checksum.

Every Kermit packet, which is another 22 protocol for file transfer that's been in the 23 public domain for 20 years, for instance, uses that 24 exact mechanism. These packets are generally act 25 and not act.

Q. Referring to the first of the three 2 documents that are stapled together in Exhibit 453,

3 the AS/400 interface, did you look at this document

4 at all when it was given to you?

A. You mean the instant it was given to 5 6 me?

Q. Yes.

A. Well, probably within a day or two.

O. I mean, you looked through it to see 10 what was in here?

11 A. Yeah. I was actually hoping that, 12 you know, it would save me time and effort.

Q. Did you look at the notice on the 14 first page -- the second page, I should say, of 15 what we have stapled here with the notice that it 16 was considered by CDS to be proprietary?

A. I see that.

17 18 In my business, where I have worked 19 for companies that sign NDAs all over the place, if 20 I see a document that refers to an interface that's 21 considered proprietary, I mean, we have a whole set 22 of legal departments making sure that the proper 23 NDAs are signed.

So, I mean, this particular document 24 25 dealt with the Bodenstab interface. We were

1 dealing with Mr. Bodenstab. It seemed fairly

2 reasonable that if it were confidential that, you

Q. So you knew it might have been

7 agreements necessary for you to have access to it?

5 proprietary, but you assumed there was a legal

6 document or whoever was taking care of the

3 know, everything would be correct with it.

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23

Again, this is something that every 2 computer network does.

If you take this same technique 4 that's used on every computer network and, you 5 know, every 485 network around, there's gaming 6 companies in town that think that it's somehow 7 proprietary to them when these techniques were

8 discovered long before those companies existed. So I would not consider something 10 that I can look up in a bookstore, say, 11 confidential.

12 Q. How would one go about determining if 13 a particular coding technique was worthy of being 14 confidential information as opposed to public

15 domain information?

16 17 think I can.

18 Public domain information is very 19 simple. It is information that is in the public 20 domain. It's published. It's either published or 21 it isn't. If you see it, everyone is using it, 22 it's public.

As to whether something is 24 confidential, I mean, that means you can't see it. 25 I mean, it's available one place only.

A. I will answer that question as I

A. Well, I know Mr. Bodenstab doesn't 9 have a documentation department. So if the first 10 interface he had was with CDS. I didn't find it 11 unusual that it would come with CDS on it. 12 And having been from CDS, I think 13 they put "confidential" on every document, 14 honestly, you know, to protect themselves. Whether 15 it is or not, they will slap it on the front of it. Q. What was the basis of your belief 16 17 that you were free to look at this? Was it an 18 assumption? 19 A. I'm an honorable guy, I work for an 20 honorable company. My boss handed it to me. I was 21 handed it by Mr. Bodenstab. It seemed fairly 22 reasonable. It passed my smell test.

Q. So you accessed it because you

24 trusted Pat Powers to have made the necessary

25 inquiries to ensure you access to it?

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A. Well, Pat and Acres and Bodenstab. 2 Everyone.

Again, in the course of my business, 4 I mean, I see an awful lot of stuff that's 5 confidential from one company to another. I don't 6 always, you know, on each document go to the 7 original source or to the legal department, you 8 know.

Q. Was it typical for you to have 9 10 access, though, when at Acres to CDS documents?

A. No. These were the only CDS 12 documents that I saw.

And I was actually a little bit 13 14 surprised to see them. But when I looked through 15 here, and it described nothing but the AS/400 side 16 of things, then I said: Okay. It's certainly, you 17 know, Tom's information.

Q. So you looked through it and 18 19 determined that it wasn't of any use to you?

20 A. Well, certainly, the stuff that 21 discussed Tom's software, you know, on the AS/400,

22 since we don't use an AS/400, is not going to help 23 me.

24 Q. Did you contact Mr. Powers after you 25 had looked at this to say or question whether or

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1 version I saw while at CDS was -- certainly 2 considered proprietary is the SAS protocol, which 3 is the protocol that IGT uses to its slot 4 machines.

And at both CDS and at Acres, since 6 we hooked to slot machines, I was handed one of 7 these copies, and in both cases, it said on it, you 8 know, "Proprietary, IGT."

9 You know, again, I was pretty certain 10 that our companies were, you know, licensed or 11 legally allowed to have it.

12 But I mean, in neither case, at CDS 13 or at Acres, did I say, "I want to see a signed NDA 14 before I look at this."

15 Q. So you don't know for sure whether 16 this SAS protocol was, in fact, subject to an 17 agreement between the parties?

18 A. Well, given that it said 19 "Confidential" on it, and given that I know that 20 IGT has threatened to sue many people, and the fact 21 that both CDS and Acres are using it, I mean, it 22 must be okay. They would be sued otherwise.

23 Q. When you received this, did you 24 assume that there was some kind of an agreement 25 between Casino Data Systems and Acres concerning

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1 not you had rightful access to this information?

A. No. Actually, what I said after 2 3 relatively quickly glancing at it is, "I hope we 4 don't have to do it this way. I want to do it 5 right."

Q. So would you say you had a benefit 7 from looking at this, in your view, seeing a bad 8 example of how it was done?

A. I don't know that a bad example helps 10 you do it right. I think if you can tell it's a 11 bad example, you probably already know not to go 12 down that path.

Q. Did you receive any other information 14 concerning interfaces with a player tracking system 15 that had any kind of a Casino Data Systems' 16 designation on it?

A. No.

17 18 Q. Was there a standard procedure at 19 Acres concerning how to deal with information that 20 might be another company's proprietary information? 21 A. I have never worked at a company in

22 this industry that had some sort of formal 23 procedure, if that's what you mean.

You know, for example, one of the 25 things that I saw while I was at Acres and another 1 the AS/400 interface?

2 A. No. I was pretty certain, in fact, 3 that Casino Data Systems and Acres would probably 4 not have an agreement.

But again, knowing that Tom Bodenstab 5 6 doesn't have a documentation department, and given 7 that this seemed to be 100 percent about an AS/400 8 and really not much about CDS software, I thought 9 that perhaps, you know, the CDS logo was not 10 really, you know, part of what CDS would consider 11 its own proprietary documents.

12 Q. Have you ever been given information 13 that had some kind of confidentiality designation 14 on it that you chose not to review or -- well, 15 that you chose not to review because of that 16 confidentiality designation? .

17 A. Well, I've refused to sign NDAs with 18 companies as a consultant because I didn't like the 19 terms -- or didn't feel they were reasonable. And, 20 you know, therefore, didn't see what stuff they 21 were going to see me.

22 Q. Having a peer or a boss hand you a 23 document, have you ever -- I am trying to get a 24 feel for how this is handled. 25

Have you ever said, "Whoa, stop, we

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better look into this and see if this is trulylegal for us to have access to it"?

A. My job is kind of as a programmer, and, you know, it's my boss's job and the legal

5 department's job to sign the NDAs and figure out 6 the legal ramifications.

Someone hands me a document like
that, it's not my nature to second-guess them and
say, "I trust you enough to work here, but I don't
trust you enough to follow the rules."

Q. So in your view, it is not your

12 responsibility to track down the agreements and all 13 that, and if your boss hands you a document marked 14 "Confidential," somewhere it must be taken care of

15 so that you can have access to it?

A. I am sure that if you handed me
rowspace in a something marked, you know, "Top Secret Nuclear"
whatever. Somewhere, there's a smell test where
rowspace in that if there's a few documents that

20 you put in front of me that I'd say, "Wait a

21 minute. This seems fishy."

1

I am not saying I would blindly just go ahead and look at anything. But certainly, something like this didn't register on my radar as, you know, I should run screaming from the room.

Q. Why did you leave Acres?

A. I basically felt that I was made certain promises, one of which was a salary

4 increase, and I had a review with my boss, Pat

5 Powers, at which time, he told me that I would not

6 be getting a yearly salary increase that I fully7 expected, and I resigned the next day. Gave my

8 resignation the next day.

9 Q. Were there any other reasons for 10 leaving?

A. Actually, I liked the company an awful lot. I like the products, I like the people.

No. If they had paid me or given me raise, I would have stayed.

16 Q. Did Mr. Powers say why you would not 17 be getting a raise?

18 A. Pat and I had in the course of
19 working together, especially in, you know, a high
20 pressure ich like this you know had liele

20 pressure job like this, you know, had little

21 run-ins or little butting heads, and I felt that it 22 was pretty much a personality conflict between he 23 and myself.

Q. What did he say, though, about why you wouldn't be getting a raise?

1 A. Well, actually, he didn't say I 2 wouldn't be getting a raise.

Pretty much close to his exact

4 phrasing was: If I was a good boy in a couple 5 months, I might.

6 And I felt that he was kind of

7 stringing me along, seeing as how we were a couple 8 months down the road from where it was promised in

9 the first place.

10 Q. What did he mean about being a good 11 boy?

12 A. I took a day off to go to my 13 girlfriend's daughter's wedding, and he apparently

14 didn't feel I gave him enough notice for that. And

15 that was one of the things he talked about in my 16 review where he said I did a bad job.

17 Q. Was there anything else that was at 18 issue that led him to say you had to be, as you 19 said, a good boy?

20 A. Well, you have to understand, Pat 21 drove his engineers very hard. This system was put

together in six months, which is quite a feat.And most people worked every

24 weekend. Perry, for instance, took off, I believe,

25 something like two days between January and March.

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And I felt that was pushing it. And given my project was ready on time, I didn't need to work quite so many weekends. And Pat, I think, felt that I was setting a bad example, that if I started taking Saturday off or Sunday off, that

5 started taking Saturday off or Sunday off, that 6 others would too.

Q. Others would get that crazy idea?A. And so, you know, there was an

9 example, you know, where he, you know, expressed to

10 me that, you know, almost whether or not I needed

11 to be there, I should be there. You know, as sort 12 of a show of company support.

And seven days a week for three
nonths at my age is more than I am interested in.

15 And I made that clear to him from the beginning as 16 well.

17 Q. Did you have anything lined up prior 18 to leaving Acres?

19 A. No. Believe it or not.

20 MR. DOWELL: I will mark as Exhibit

21 309 a document that you produced this morning. It 22 says at the top "60 Day Evaluation."

23 (Exhibit 309 was marked for

24 identification.)

25 ///

| M | Martin Dempsey Co | onden | iselt! July 13, 199 |
|-------|---|-------|--|
| | Page | 145 | Page 14 |
| - ' | 1 BY MR. DOWELL: | | 1 A. I would have to guess. I mean, the |
| | 2 Q. Can you tell me what this document | 1 ' | 2 phone list is there. |
| - 1 | 3 is? | ' | 3 MR. DOWELL: Why don't we mark that. |
| | 4 A. Actually, I believe it was pretty | - 1 | 4 (Exhibit 310 was marked for |
| | 5 much closer to a 90-day evaluation by the time it | | 5 identification.) |
| | 6 was given, and apparently, Acres, like many | ' | 6 BY MR. DOWELL: |
| | 7 companies, has a provisional period before you | 1 | 7 Q. We will mark this Exhibit 310. It |
| | 8 become a full employee. | | 8 appears to be an Acres phone list. |
| 1 T | 9 And at the end of, I guess, 60 days, | 1 - | 9 Do you recognize this to be a list of |
| | 0 you get evaluated, at which point, they decide | I | O Acres employees and their phone numbers from |
| | whether to make you permanent or not. And I think | 11 | |
| - 1 | 2 that's what this was. | 12 | |
| 13 | | | 3 there. |
| | 4 date of 8-31-98 or thereabouts? | 14 | |
| 15 | | 15 | · |
| - 1 | 6 than 60 days. | 16 | |
| 17 | Ç. 3.1.1. g | 17 | (= 0) 0 = == 0 = 0 = 0 = 0 = 0 |
| | 8 that was on a weekend? | | 8 listed here, other than yourself, were formerly |
| 19 | | | 9 employed by CDS? |
| 20 | , , , , , , , , , , , , , , , , , , , | 20 | |
| 21 | • • • • | | hope to get them all. But we have previously |
| 22 | 3 0 | 1 | 2 spoken about Rich Schneider. |
| 23 | . , | 23 | |
| 24 | • | | Could you circle everybody that was formerly at |
| 25 | A. This was written by Pat Powers. | 25 | 5 CDS. |
| | Page 1 | 46 | Page 148 |
| 1 | Q. What are the corporate philosophies | 1 | A. As long as you're willing for me to |
| 1 | he is referring to? | 2 | be wrong in either direction, I will do my best. |
| 3 | | 3 | Q. Do your best. |
| | while I was working 18 to maybe even 20 hours a | 4 | A. I don't truly know the people from |
| 5 | day, I was late turning in my time sheet, and I got | | Corvallis, but of the people in Las Vegas in this |
| | an E-mail from human resources, you know, stating | 6 | column, I have marked the ones that I know to have |
| 7 | that. Okay. | | been employees of CDS. It could be incomplete. |
| 8 | g .,g, c, . | 8 | Q. There could be more? |
| | This is in the December time frame. We were trying | 9 | |
| 10 | to get everything in, and I didn't respond to it | 10 | gotten one wrong. |
| | right away. | 11 | SpinTek, I believe, has also at least |
| 12 | | 12 | six ex-employees of CDS as well as Silicon Gaming. |
| | E-mail from human resources, and in fact, I got | 13 | In fact, I believe even Super Pawn |
| | eight E-mails from human resources in a period of | 14 | has three ex-CDS employees. |
| | 48 hours as to why my time sheet wasn't in. | 15 | Q. Is there a reason that CDS has so |
| 16 | | 16 | many former employees, that you are aware of? |
| 1 | day, I felt that this was somewhat unreasonable. | 17 | A. At about the time I left, CDS went |
| 18 | And so, I sent those eight E-mails | 18 | |
| | with a somewhat nasty note to Pat, to Rich, to the | | approximately 20 employees resign in six months. |
| 20 | human resources person. And they felt that that | 20 | Q. Out of how many? |
| 1 | was not playing nice. | 21 | A. These are engineers that I am talking |
| 22 | And so, I believe that that | 22 | about, and I believe in the engineering group, |
| 1 | comment when he talked with me about that | | there might have been 30. A very high percentage. |
| 124 | document, that was the incident be mentioned | 124 | Maturally again if you work in this |

Q. How many employees does Acres have?

24 document, that was the incident he mentioned.

Naturally, again, if you work in this

25 industry, if you work in Las Vegas in the computer

| - | | ~ = | July 13, 177. |
|--|---|--|---|
| | Page 149 | 9 | Page 15 |
| 1 | building business, you work for a competitor. | 1 | And if you could read them off out |
| 1 2 | (Exhibit 311 was marked for | 2 | loud for the record. |
| 3 | identification.) | . 3 | A. Richard Schneider, Martin Dempsey, |
| 4 | BY MR. DOWELL: | 4 | Darryl Pleasant, Miles Patceg. Perry Cobb, Scott |
| 5 | Q. I would like to give you a document | 5 | Boyd, I believe some of the artists, actually, too, |
| 6 | that is marked as Exhibit 311. | 6 | but I'm not certain which ones. |
| 7 | Have you ever seen a document like | 7 | Q. Just for the written record, could |
| 8 | that or similar to that before? | 8 | you read off the names that you circled on the |
| 9 | A. This doesn't look exactly like what I | 9 | phone list that we marked as Exhibit 310. |
| 10 | saw, but I think I did see a flow chart once of the | 10 | A. That would be Scott Boyd, Perry Cobb, |
| 11 | Acres organization. | 11 | Robert Cole, myself, Miles Patceg, Darryl Pleasant, |
| 12 | Q. Based on your knowledge of the Acres | 12 | Rich Schneider. |
| 13 | organization, does it appear that this is a | 13 | MR. DOWELL: Why don't we take a |
| 14 | representation of the corporate structure of Acres? | 14 | break. |
| 15 | | 15 | (There was a recess taken.) |
| 16 | it it's from 10-27? | 16 | BY MR. DOWELL: |
| 17 | • | 17 | Q. Mr. Dempsey, I will give you a |
| | me ask that question again. | | document that we previously marked as Bodenstab |
| 19 | , , | 19 | Exhibit No. 351. |
| 1 | organization around the time of October 27, 1998, | 20 | First, I will ask if you have ever |
| | does it appear to be an accurate representation of | 21 | seen this document, not including the handwritten |
| 22 | the corporate structure of Acres on that date? | 22 | notes all over it. |
| 23 | A. It looks pretty close. | 23 | A. This certainly looks to be a |
| 24 | Q. Do you notice anything offhand that | 24 | description of the CDS algorithm. |
| 25 | is incorrect? | 25 | Q. The algorithm that what algorithm |
| | Page 150 | | Page 152 |
| 1 | A. No. It looks okay, you know, to my | 1 | is that, I should say? |
| 2 | knowledge. | 2 | A. This is the algorithm as to how to |
| 3 | Q. If you could refer back to the Bates | 3 | encode a card in a CDS format so that the Sentinel |
| 4 | No. 2043250. | 4 | will accept it. |
| 5 | A. The Bates number? | 5 | Q. To your knowledge, is this algorithm |
| 6 | Q. Yes. That is the I am referring | 6 | being used anywhere in the Acres system installed |
| | to that little number that the lawyers stamp on | 7 | at Mandalay Bay? |
| | there. | 8 | A. I am pretty certain that it is |
| 9 | A. There it is. | 9 | nowhere in there. |
| 10 | | 1 | nowiele in dele. |
| | Q. It wasn't originally on there. | 10 | Q. Why do you say "pretty certain"? |
| | A. 204? | 10 11 | Q. Why do you say "pretty certain"?A. I haven't seen every piece of |
| 12 | A. 204? Q. 2043250. | 10 11 12 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, |
| 13 | A. 204? Q. 2043250. A. 3250. | 10 11 12 13 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and |
| 12 13 14 | A. 204?Q. 2043250.A. 3250.Q. Under "Pat Powers" — who you | 10 11 12 13 14 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and I've seen quite a bit has it in there. |
| 12 13 14 15 | A. 204? Q. 2043250. A. 3250. Q. Under "Pat Powers" — who you testified was your boss, correct? | 10 11 12 13 14 15 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and I've seen quite a bit has it in there. And every piece where you would |
| 12 13 14 15 16 | A. 204? Q. 2043250. A. 3250. Q. Under "Pat Powers" — who you testified was your boss, correct? A. Uh-huh. | 10 11 12 13 14 15 16 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and I've seen quite a bit has it in there. And every piece where you would reasonably place this algorithm, such as to decode |
| 12 13 14 15 16 | A. 204? Q. 2043250. A. 3250. Q. Under "Pat Powers" — who you testified was your boss, correct? A. Uh-huh. Q it says, "CABS." What does that | 10 11 12 13 14 15 16 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and I've seen quite a bit has it in there. And every piece where you would reasonably place this algorithm, such as to decode the card number, I know it's not there. |
| 12 13 14 15 16 17 | A. 204? Q. 2043250. A. 3250. Q. Under "Pat Powers" — who you testified was your boss, correct? A. Uh-huh. Q. — it says, "CABS." What does that mean? | 10 11 12 13 14 15 16 17 | Q. Why do you say "pretty certain"? A. I haven't seen every piece of software in the Acres system. It's, you know, rather large. But no part that I've seen and I've seen quite a bit has it in there. And every piece where you would reasonably place this algorithm, such as to decode the card number, I know it's not there. Q. Where would those places be where you |
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1 be the Translator. And the last place where it

- 2 could probably be placed would be in the BIF
- 3 program. And that defines a path from the card
- 4 reader up to the Bodenstab still and back.
- If you were to place this algorithm
- 6 anywhere else, it wouldn't necessarily do you any 7 good.
- O. The Concentrator is a software 9 machine rather like the Polar. It is the first 10 stop from the floor equipment into the back of the
- 11 system.
- CDS has two devices, one called the 12
- 13 Polar and one here called the Transaction
- 14 Processor, although I have heard it referred to as
- 15 the Tracker as well. Acres has programs that are
- 16 different in many ways, but it also has two
- 17 programs, one called the Concentrator, more
- 18 naturally similar to the Polar, and the Translator,
- 19 which is more similar in certain ways to the
- 20 Transaction Processor.
- 21 (Exhibit 312 was marked for
- identification.) 22
- 23 BY MR. DOWELL:
- Q. I give you a document that I am going 24
- 25 to mark as Exhibit 312. I will give that to

Page 155 1 necessarily guaranteed to make sense without a lot

- 2 of explanation. Q. This was the standard method of
- 4 communicating, though, in your group?
- A. I don't think so. I mean, Pat had a
- 6 very informal approach. It was rare that I
- 7 actually sent him a document, and I don't know that
- 8 other people necessarily sent him documents often.
- 9 He would more likely, you know, just get us all
- 10 around a table and ask where we were.
- O. But this was just a report about
- 12 routine matters that you were reporting to your
- 13 boss?
- 14 A. Yes. And I actually used it as a
- 15 checkoff list. As I'd fix something, I'd cross it
- 16 off.

24

7

- 17 (Exhibit 313 was marked for
- 18 identification.)
- 19 BY MR. DOWELL:
- Q. I will give you a document that I am 20
- 21 marking as Exhibit No. 313. The document Bates
- 22 No. 3009870.
- 23 Do you recognize this document?
 - A. Not yet.
- 25 Q. Please take a look at that, and I

Page 154

- 1 counsel for Acres and give you this copy with the
- 2 sticker on it.
- Do you recognize this document? 3
- 4

- Q. Could you tell me what it is?
- A. This is an internal document that I
- 7 created, apparently, sometime around January 14th,
- 8 that I sent to my boss, Pat Powers, that had a list
- 9 of outstanding items that I felt had to be done on
- 10 the Translator in order to get the system ready for
- 11 Mandalay Bay opening.
- 12 Q. Was this a type of document you
- 13 routinely sent to Mr. Powers?
- A. Either verbally or in writing. 14
- 15 I, you know, gave my boss status
- 16 checks and updates as to where we were. A lot of
- 17 times, it was more informal, and I'd just
- 18 mention, "I got this done," or, "I was working on
- 19 that." But sometimes I think he might have asked
- 20 me for a list, or I gave him a list.
- Q. So you prepared this list in the 21
- 22 course of your normal duties at Acres?
- A. Yes. And just by the way, you know,
- 24 it was really shorthand meant for from him to me.
- 25 So I mean, it's not full sentences or not

- 1 would like to ask you some questions about it.
- A. Yes. This looks like a document that
- 3 I wrote.
- Q. Was this an E-mail that you sent to
- 5 Meyer, Powers, Lamb, Srinivasan, and Waldner on
- 6 November 4th, 1998?
 - A. Yes.
- Q. What is the subject matter of the
- 9 E-mail you sent?
- 10 A. The subject matter is that our
- 11 current approach, or the approach we were using, I
- 12 guess, as of November, which was to use a ULONG.
- 13 which is a four-byte binary number, which is the
- 14 most natural sort of number format on a modern
- 15 computer, wouldn't be able to work properly with a
- 16 true player tracking system.
- And the reason that we were able to 17
- 18 use it up to this point is that we were generating
- 19 our own little card numbers. We weren't attaching
- 20 to a player tracking system.
- And since we could control the 21
- 22 numbers we were generating, we could make sure that
- 23 they were small enough to work with this system and
- 24 that we needed to change our system to be more
- 25 general.

| | | - | |
|----------------|---|--------------|---|
| Ι. | Page 15' | - 1 | Page 159 |
| | | | Q. Now, is the Luxor a Circus property? |
| 13 | , | 1 | A. Yes. Yes. This is what Perry told |
| 1 3 | Jan and a property and a party of the party | | me when he came back from the property one day. |
| 1 | cards but operate cross | | And he was quite aghast at it. |
| 5 | 1 1 7 | 15 | · · · · · · · · · · · · · · · · · · · |
| 6 | | - 1 | because since we didn't generate these numbers and |
| 1 | | | couldn't change them and whatever, I mean, |
| 8 | | 1 | theoretically, the person's Mandalay Bay card would |
| 9 | , , , , , , , , , , , , , , , , , , , | | work over at Luxor and give points to the other |
| i . | their properties. | | guy. |
| 11 | | 11 | |
| | the Bodenstab system, only that we were going to be | • | accidentally play the same amount, someone could be |
| | using it. And I knew that Circus was using | | thinking they're getting points and not. And it |
| 1 | Bodenstab to stop to Bodenstab somehow. And if | | wouldn't really be a CDS problem or a Mandalay Bay |
| | they had one AS/400 running Tom's software that was | | problem so much as these customers are confused. |
| | doing multiple player tracking for multiple | 16 | , |
| | properties, some of which are CDS and some of which | | long after Mandalay Bay opened. I think I heard |
| | aren't, that we would have a real problem unless we | | about Luxor cards working probably sometime in |
| | managed to deal with that. | 1 | March. |
| 20 | , | 20 | , |
| | software didn't run cross-property. He runs even | 21 | - J-, J |
| | on the same machine, you know, each casino | 22 | |
| | separately. | 23 | |
| 24 | Q. So they are not all linked together | | you have to operate using CDS cards? |
| 25 | by a common computer at all the Circus properties? | 25 | A. Because at the time, Tom Bodenstab |
| | Page 158 | | Page 160 |
| l | A. To the best of my knowledge, all the | 1 | was generating these cards, and what he did to get |
| | player tracking clubs are completely separate at | 2 | us started was actually hand us some cards from |
| 3 | this point. | 3 | other CDS systems and said, "Try these." |
| 4 | Q. Isn't it true that you can use like a | 4 | And so, we tried again to try and use |
| | card from Circus Circus casino at Mandalay Bay and | 5 | them. And these are, you know, again cards that |
| 6 | vice versa? | 6 | any person can be given. All you do is walk into, |
| 7 | A. I don't know that. | 7 | say, Luxor, give them your name, and they'll hand |
| 8 | I know that some Luxor cards | 8 | you a card. You can take this card to any Track 2 |
| | accidentally appeared to work at Mandalay Bay. And | 9 | reader, run it in, and up comes this number. |
| | this is really horrible. This was not a feature; | 10 | So the thing is that when you try and |
| | this was a bug. And it was a bug, and whoever | 11 | decode this number, as we're talking about with |
| | generated the card numbers, the Bodenstab or Circus | 12 | this algorithm, we can't decode number the same way |
| | or however it was done, because it didn't work | 13 | that, say, Tom might be. We don't we don't |
| | properly. | 14 | have that algorithm. |
| 15 | What happened was that they reused | 15 | So I set up a red flag to Pat and |
| | some numbers that were also in the Luxor system so | 16 | said, "Hey, we got to do something about this." |
| | that a customer coming in from Luxor and putting | 17 | Q. I guess I am not following your |
| | their card in would get it would appear to be a | 18 | answer. |
| 19 | good card, it would appear to work. | 19 | A. Maybe would you tell me the question |
| 20 | | | |
| | However, it would say, "Hello, Joe." | 20 | again. |
| | It would have the wrong name, and it would, in | 20 21 | Q. Let me try again. |
| 22 | It would have the wrong name, and it would, in fact, be some other customer that actually existed | | Q. Let me try again. It says: |
| 22 23 | It would have the wrong name, and it would, in fact, be some other customer that actually existed in Mandalay Bay. And if the Luxor customer played | 21 | Q. Let me try again. |
| 22 23 24 | It would have the wrong name, and it would, in fact, be some other customer that actually existed in Mandalay Bay. And if the Luxor customer played | 21 22 | Q. Let me try again. It says: |

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So I understand that what you are 2 saying here is you have to be able to use CDS cards 3 at Mandalay Bay; is that right?

A. Well, anybody's cards.

For instance, if you take a look at 6 issue 1, No. 3, it talks about a separator

7 character that is usually represented by a dash.

It turns out that the ACSC player 9 tracking system, which is in use by the Reserve,

10 uses these separator characters; that CDS doesn't

11 do it, but some of these other systems do.

12 So if we're going to use anybody's 13 cards, regardless of where they're created, we have 14 to be able to handle anything that can be encoded

15 on that mag stripe.

Q. Maybe perhaps on a simpler basis, I 17 thought the goal was to have at Mandalay Bay it 18 only use Mandalay cards.

19 Is that incorrect?

20 A. Well, I mean, again, back in

21 November, we didn't know what was happening. And 22 whether the cards were Mandalay Bay cards or Luxor

23 cards or Circus cards or even ACSC system cards, we

24 had no control over that since Acres didn't create

25 the card number.

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- Q. So was it your understanding in
- 2 November that someone with a Luxor card should be
- 3 able to walk into Mandalay Bay and be in the club
- 4 and get points?
- A. Have it work properly? 5
- 6 Q. Right.
- A. No. In fact, in November, no one was
- 8 doing that.
- However, people had talked about it
- 10 for years, and I saw an article in the newspaper in
- 11 the spring, I believe, where Station Casinos has
- 12 implemented something they call a Station pass or
- 13 Station card where their cards now apparently work
- 14 at all their casinos, where you can get one card
- 15 that works everywhere.
- Q. So that was not a goal of the
- 17 Mandalay Bay installation, though, to have the
- 18 cards compatible across all Circus properties?
- A. Well, you know, no. But given that
- 20 people for years have talked about trying to offer
- 21 this.
- 22 Harrah's was another customer that
- 23 talked about trying to get all of their properties
- 24 across the country to have one player's club, and
- 25 they've talked about it.

It's, you know, a standard thing

- 2 that's known in the industry. And given that
- 3 Circus had six or seven other properties, most of
- 4 which use CDS, you know, if we wanted to be able to
- 5 interoperate down the road, at some future date,
- 6 you know, the trick is not to paint yourself into a
- 7 corner.
- Even if it's not a requirement now,
- 9 you try to make your system as flexible as you
- 10 can.

11

17

19

For instance, there's no

- 12 requirement -- and I don't believe Acres has sold
- 13 a system yet that interoperates with ACSC or has
- 14 taken on a property that's previously had an ACSC
- 15 system.
- 16 Q. It says here -- I'm sorry.
 - A. But we designed the system to be able
- 18 to work with those cards as well.
 - O. It says here in the second sentence:
- 20 "This means not only do we have to read CDS cards but at
- 21 22
- least when communicating to the
- 23 player tracking system, we have
- 24 to decode them as the same 25
 - number as CDS."

- A. Yes.
- Q. What does that mean?
- A. Well, again, in November, not having
- 4 had discussions with Tom Bodenstab as to how the
- 5 system was supposed to work, I was basically
- 6 guessing what we would have to do to try and
- 7 interface with him.
- And potentially, if he had one AS/400
- 9 system for seven Circus properties and we were 10 going to have to read those cards, we'd have to
- 11 somehow decode it to the same number.
- 12 Q. So was it your understanding that to
- 13 do that, based on your knowledge of the way that
- 14 decoding was done at CDS, that you would have to
- 15 use that same algorithm?
- 16 MR. RIEDINGER: Objection. Assumes
- 17 facts not stated.
- THE WITNESS: When we talked with 18
- 19 Tom, we found out basically that it wasn't a
- 20 requirement and that we couldn't do it.
- 21 BY MR. DOWELL:
- Q. What I am asking is: When you wrote 22
- 23 this, was it your understanding that you were going
- 24 to have to use the algorithm that CDS used to
- 25 decode CDS cards?

| J | | _ | |
|--|---|--|---|
| 1 | Page 165 | 5 | Page 167 |
| | A. No. Specifically, I said in here | 1 | that I have no intention of using that algorithm. |
| | 2 that I could do it without using knowledge acquired | 2 | Q. Was there a lot of pressure during |
| 1 | 3 as proprietary. | | this time, in November, to come up with this system |
| 1 | Q. How would you do it without using | 4 | that could read CDS cards? |
| : | 5 proprietary information? | 5 | A. No. This is me, more or less, trying |
| 1 | A. How we actually did it in the working | 6 | to come up with the right way to do it. |
| | system that we finished was we had the Bodenstab | 7 | Whenever you're designing something |
| 8 | 3 system send us both numbers. | 8 | like this, you want to handle as many possible |
| 9 | () | 9 | cases as you can. |
| 10 | solution when you wrote this in November of '98? | 10 | And for instance, let's just say I |
| 11 | 5-1-1 July 10-1-1 | 11 | didn't handle the separator character. What that |
| | more: Here are our problems. Let's talk about | 12 | would mean is we could potentially install the |
| 13 | them. | 13 | system at 20 or 30 casinos and all the sudden found |
| 14 | | 14 | out that we needed to do something with the |
| | solution. The only solution that I really | 15 | separator character. And at that point, it's an |
| | recommended is that we had to use 20 character | | entirely terrible mess to go back and try to modify |
| | fields if we were going to, you know, guarantee to | | all these systems out there and upgrade everything |
| 1 | work with every card. | 18 | and make it all fit. |
| 19 | • | 19 | And so, the best way to do it is when |
| 20 | • | | you're doing the design is try to come up with |
| 21 | • | 21 | every possible problem that you can see and work |
| 22 | 3 | 22 | around it so that you don't have these things come |
| 23 | | 23 | up and hit you and require rework. |
| 24 | to decode them as the same | 24 | Q. It was different from that at |
| 25 | number as CDS. This isn't | 25 | Mandalay Bay. It wasn't just anticipating, you |
| | Page 166 | | Page 168 |
| • | | | |
| 1 | really hard" | 1 | know, future needs. |
| 1 2 | really hard" | 1 2 | know, future needs. |
| 2 | really hard" | .2 | |
| 2 | really hard" And then, you go on. Well, no. You | .2 | know, future needs. Wasn't it more you had to make it |
| 2 3 | really hard" And then, you go on. Well, no. You say: | 2 3 4 | know, future needs. Wasn't it more you had to make it work with CDS cards? |
| 2 3 4 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and | 2 3 4 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. |
| 2 3 4 5 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge | 2 3 4 5 6 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. |
| 2 3 4 5 6 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it | 2 3 4 5 6 7 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having |
| 2 3 4 5 6 7 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered | 2 3 4 5 6 7 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this |
| 2 3 4 5 6 7 8 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when | 2 3 4 5 6 7 8 9 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. |
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| 2 3 4 5 6 7 8 9 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when discussing the player tracking system." | 3 4 5 6 7 8 9 10 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. If all I was interested in doing was trying to operate with just CDS cards, I wouldn't |
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| 2 3 4 5 6 7 8 9 10 11 12 13 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when discussing the player tracking system." Now, when you say, "This isn't really hard," aren't you referring to the decoding? | 2 3 4 5 6 7 8 9 10 11 12 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. If all I was interested in doing was trying to operate with just CDS cards, I wouldn't have even put in that. This was a more general approach to: Here's all the problems out there. |
| 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when discussing the player tracking system." Now, when you say, "This isn't really hard," aren't you referring to the decoding? A. Well, if I decoded it using the | 2 3 4 5 6 7 8 9 10 11 12 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. If all I was interested in doing was trying to operate with just CDS cards, I wouldn't have even put in that. This was a more general approach to: Here's all the problems out there. It wasn't really in response to any |
| 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when discussing the player tracking system." Now, when you say, "This isn't really hard," aren't you referring to the decoding? A. Well, if I decoded it using the algorithm, then that obviously would be | 2 3 4 5 6 7 8 9 10 11 12 13 14 15 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. If all I was interested in doing was trying to operate with just CDS cards, I wouldn't have even put in that. This was a more general approach to: Here's all the problems out there. It wasn't really in response to any particular pressure. |
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| 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 | really hard" And then, you go on. Well, no. You say: "This isn't really hard, and I don't have to use knowledge acquired when I was an employee there that they can claim is proprietary to do this. But it wasn't something we considered or mentioned to Circus when discussing the player tracking system." Now, when you say, "This isn't really hard," aren't you referring to the decoding? A. Well, if I decoded it using the algorithm, then that obviously would be proprietary. In fact, we found it wasn't hard, for instance, by using two numbers. I was sure there was a work-around. I just didn't know what it was at this time. Q. You knew it wasn't really hard, but you didn't know how to do it? A. How to do it, no. | 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 | know, future needs. Wasn't it more you had to make it work with CDS cards? MR. RIEDINGER: Objection. Argumentative. THE WITNESS: Specifically having been at CDS, I know that CDS does not use this separator or dash character. If all I was interested in doing was trying to operate with just CDS cards, I wouldn't have even put in that. This was a more general approach to: Here's all the problems out there. It wasn't really in response to any particular pressure. Again, as I mention in here, I said, "We never even considered it or discussed it with Circus." BY MR. DOWELL: Q. Did there ever come a time when Circus informed anyone at Acres, to your knowledge, that the Mandalay Bay system would have to be able to read CDS coded cards? A. No. The only thing that we knew was |

Page 169 Page 171 Q. If I went over to Luxor and got a Q. Well, any of them. I will represent 2 player card and took it over to the Mandalay Bay, 2 that it was produced together. I don't know that 3 would it work? 3 it - and it is consecutively Bates numbered. A. You're asking my opinion, and I will 4 I don't know that it belongs together. 5 give you my judgment on it. A. I am going to believe that the page I'd say 10 percent. 6 6 marked 3006628 looks to have my handwriting on it. 7 O. Okav. 7 I think that's my handwriting. A. What happens is that, apparently, And 6629, that really looks like my 9 there's an overlap. But for instance, there's 9 handwriting. 10 maybe a million customers at Luxor, I don't know. 10 This document, just as a definition, 11 There's maybe half a million customers at Mandalay 11 is part of an Acres proprietary source file that 12 Bay. And some fraction of those two populations 12 defines the network packet that comes up from the 13 intersect. Apparently, there are some of the same 13 card reader SMIB. 14 numbers. But I don't think they all intersect. 14 Okay. 3006631 looks to be a database 15 Again, this is something you'd need 15 schema from the Acres player tracking cash from 16 to test. 16 some unknown date. You know, it changed over 17 Q. But it wasn't part of the system 17 time. 18 design, from your standpoint, to make something 18 And 6632 is the completed ratings 19 like that happen intentionally? 19 table, and 6633 is card-in table. The card-in A. No. In fact, as I said, we had it 20 20 table is certainly not current as of when I left. 21 happen accidentally and considered it a bug. 21 I don't know that I have ever seen Q. When you were communicating with the 22 6634, 6624, 6625 through 27 before. I certainly 23 player tracking system, why did you have to decode 23 didn't prepare them. 24 numbers the same as CDS, like it says here in 24 This could be Perry's work. I'm not 25 Exhibit 313? 25 certain who prepared these or why. Page 170 Page 172 MR. RIEDINGER: Asked and answered. Q. I believe these came from your THE WITNESS: Well, if we had to use 2 files. 3 Does it look like something that you 4 couldn't modify his system in any way, shape, or 4 have seen before? 5 form, and he was talking to a bunch of CDS systems A. I actually don't recall the documents 6 at an arbitrary number of casinos, and we were 6 that I discussed, mentioned. Again, Perry and I had a player

21

24

1 2 3 the same interface as CDS, if Tom Bodenstab 7 going to plug in there just like we were a CDS 8 casino, we'd have to do that. And we didn't do that, he didn't ask 10 us to, we didn't need to, it didn't happen. 11 BY MR. DOWELL: Q. Are you familiar with the term 13 "casino management system"? A. I believe that's what Tom Bodenstab 15 calls his system. 16 (Exhibit 314 was marked for 17 identification.) 18 BY MR. DOWELL: 19 Q. Mr. Dempsey, I will give you a 20 document I am marking as Exhibit 314. 21 Could you look through that. It is 22 Bates Nos. 3006624 through 3006634.

8 tracking file. It could be that our stuff got 9 mixed up. 10 Q. Referring to 3006625. 11 A. 25, okay. 12 Q. Can you tell what this is? A. It looks to be a summation or a 13 14 redoing of the information in the Oasis document 15 that starts with 3006319. Neil Spencer Exhibit 16 453. Again, one of the documents in that 17 collection. 18 Q. What do you mean by "a redoing"? A. Well, it looks to have the same 19 20 information. If you're looking at that 6625 field, 22 and I go back to -- well, I guess it isn't quite 23 what I thought.

There are certain similarities

25 between 6625 and this other document, 3006312.

24 if you recognize the document.

A. Which piece?

Could you look through that, and see

| M | lartin Dempsey | Conde | :ns | eit! July 13, 19 | 9 |
|-----|---|-------------|----------|---|----|
| | Pa | ge 173 | | Page 1 | 7 |
| 1 | Q. Could you walk me through what the | İ | ı | Do you know what these columns across | |
| 2 | similarities are that you see? | | 2 | the top represent? | |
|] 3 | A. Well, for instance, it says, "primary | | 3 | A. It looks like there's a one-to-one | |
| 4 | OCR number" in both places. It says, "primary | | 4 | correspondence between the types of messages or the | |
| 5 | player last name" in both places. | ŀ | 5 | headings in the other CDS document as here. | |
| 6 | Q. Where do you see? Okay. | l | 6 | Q. So | |
| 7 | A. "Primary player first name. Primary | | 7 | A. So where we talked before about CDS | |
| 8 | alias." | | 8 | have eight transactions, I see here eight columns | |
| 9 | I mean, almost all of them go right | | 9 | with the same headings. | |
| 10 | from one to the other. | | 10 | Q. Okay. I am with you. | |
| 11 | Q. So it looks like someone copied out | | 11 | So it looks like each column is a | |
| 12 | of the Casino Data Systems engineering | Į. | 12 | different message format, is that correct, that was | |
| | specification these field names into this spread | | | used by CDS and is early shown by CDS in its | |
| | sheet on document 3006625? | | | engineering specifications? | |
| 15 | A. Yeah. And it's even labeled | - 1 | 15 | A. Again, I would probably call it | |
| | "Oasis - AS/400 Transactions." | | | Bodenstab, but yes. | |
| 17 | | | 17 | Q. On the document, it says, "CDS." | |
| 18 | · · · · · · · · · · · · · · · · · · · | | 18 | A. The document is labeled "CDS." | |
| | 400 transactions in this document. | 1 | 19 | Q. So you have the eight columns, and | |
| 20 | | | - | does it appear that it is checked off in each row | |
| | June 29th, 1998 engineering specifications from | | | where the particular field is used in the message | |
| | Casino Data Systems? | | | format? | |
| 23 | • | [] | 23 | A. Well, it doesn't look complete. | |
| 24 | | 1 | 23 24 | For instance, on page 3006314, at the | |
| | describing the Oasis 400 transactions in this | | | top of the page, under "Change primary OCR number," | |
| _ | | | | | |
| 1 | document, and I just wanted to confirm that the | ge 174 | , | Page 1' I see something that says, "PCID," post account | /0 |
| | document you were referring to is the June 29th, | | | • • | |
| | 1998 engineering specifications? | | | number, on the CDS document. And I don't see | |
| 4 | A. Yeah. I swear, there's a header page | l | | that wait a minute. Yeah, there's there. | |
| | • • | | | That's okay. | |
| | or something missing off that. | } | 5 | Q. You found it on 3006314 under the | |
| 6 | Q. But | ĺ | 6 | A. What I am trying to come to grips | |
| 7 | | | | with here is that I see four checkmarks in the | |
| 8 | , | I . | | "Change OCR," which I chose because there is the | |
| | No. 3006312. | | | smallest number of checked boxes. And so, it looks | |
| 0 | A. Looks good to me. | | | like there's four fields. | |
| 1 | Q. What do those checkmarks represent, | | 1 | Q. Okay. | |
| | as far as you can make it out? | I | 2 | A. But when I look at 3006314 at the | |
| 3 | A. It looks like a mapping. It looks | | | "Change OCR," it looks like there's considerably | |
| | like the same information, basically, as in pages | 1 | 4 | more than four fields. | |
| | 3006312 through 3006316 in a different format. | 1 | | And so, I don't know why, if someone | |
| 16 | Q. How come some of the boxes are | 1 | 6 | was trying to match these, they didn't do a more | |
| | checked and some aren't? I don't understand how | 11 | 7 | thorough job. | |
| 8 | that works. | 1: | 8 | But it looks pretty close. Maybe | |
| 9 | MR. RIEDINGER: Objection. | 11 | 9 1 | they decided to leave out some for a reason. | |
| 0 | Foundation. | 2 | :0 | Q. It looks like they left out like | |
| 1 | MR. DOWELL: Let me back up. | 2 | 1 ' | "Record Created Date," didn't they? | |
| 2 | BY MR. DOWELL: | 2: | 2 | A. Yeah. "Record Created Date." It | |
| 3 | Q. Do you have any understanding as to | 2: | 3 | ooks like they left out the first four they | |
| 4 | what these checkmarks let's go back even | | | eft out the first four, for some reason. | |
| | farther. | 2 | | O. Could it be that they're common to | |

25 farther.

Q. Could it be that they're common to

2 BY MR. DOWELL:

8 your file?

10 speculation.

12 how it got there.

16 and gave it to Acres counsel.

9

11

13

17

21

25 ///

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1 all the message formats?

- 2 A. Are they? Oh, maybe that could be
- 3 it.
- 4 Q. So it appears that someone went
- 5 through and did a fairly detailed analysis of what
- 6 is shown in the Casino Data Systems engineering
- 7 specification?
- 8 A. Yes.
- 9 MR. RIEDINGER: Objection. It lacks
- 10 foundation.
- 11 THE WITNESS: You're asking for my
- 12 opinion.
- 13 BY MR. DOWELL:
- 14 Q. Based on your knowledge of the
- 15 development work that went into the Acres system
- 16 and your knowledge of software programming and the
- 17 procedures that someone goes through in developing
- 18 software, does it appear to you that someone went
- 19 through and looked at and closely analyzed the CDS
- 20 engineering specification shown in Spencer 453?
- 21 MR. RIEDINGER: That certainly calls
- 22 for an opinion.
- 23 THE WITNESS: I will second his
- 24 objection, why not.
- 25 But I mean, yeah, I guess it does.
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- 1 I certainly didn't do it. I knew better.
- 2 BY MR. DOWELL:
- 3 Q. Why did you know better?
- 4 A. Well, having been in this business
- 5 almost 20 years, I didn't need to do this much work
- 6 to show what this shows, which is it's horrible.
- 7 There's a whole bunch of transactions
- 8 using all sorts of different fields. It's very
- 9 confusing.
- The Acres method where we just have
- 11 three messages is better.
- 12 As an aside, I don't know if they did
- 13 this in Excel or not, but I don't even know how to
- 14 make one of those check boxes. They certainly look
- 15 computer done. They're too accurate to be done by
- 16 hand.
- 17 Q. So it appears somebody else is guilty
- 18 of making this chart, then?
- 19 MR. RIEDINGER: Objection. Assumes
- 20 facts not testified to --
- 21 THE WITNESS: Certainly not me.
- 22 MR. RIEDINGER: and I object to
- 23 the phrase "guilty." It's certainly argumentative,
- 24 in the least.
- 25 THE WITNESS: However, I will

- 1 BY MR. DOWELL:
- Q. I asked you if it looked like someone

1 definitely say, on 6628, that is my handwriting.

Q. So it appears - if these documents

4 were in a file that were together, meaning whatever

5 we received, this spreadsheet was right next to the

6 document with your handwriting, would it appear

7 that someone provided this spreadsheet to you for

MR. RIEDINGER: Objection. Calls for

THE WITNESS: I mean, I don't know

I mean, I picked up whatever was in

14 my file, the dregs, when I was leaving. The stuff

15 that appeared might be required for this testimony,

And whatever was in the player

MR. RIEDINGER: I will note for the

18 tracking folder, he got. Whatever seemed to be in

22 record that it's counsel for CDS who characterized

23 this material as having been in Mr. Dempsey's

24 file. It's not the testimony of the witness.

19 there. And I made no attempt to characterize it,

20 and I don't recall ever having seen it before.

- 3 had gone through and closely analyzed the CDS
- 4 engineering specification. You said that it did,
- 5 or you said, "I guess it does."
- 6 A. I'm not convinced they did a complete
- 7 job or why they left out those four fields or
- 8 whatever, but it looks like they took some time.
- 9 Q. You said, though, that you knew
- 10 better.

- 11 A. Uh-huh.
- 12 Q. I would like to ask you some more
- 13 about what you meant by that?
 - MR. RIEDINGER: Asked and answered.
- 15 MR. DOWELL: Let me ask my question,
- 16 and we'll see.
- 17 MR. RIEDINGER: You have asked him
- 18 what he meant by that. It was expressly requested.
- 19 MR. DOWELL: No, I didn't. We will
- 20 let the record speak for itself on that.
- 20 let the record speak for fiself on that
- 21 BY MR. DOWELL:
- Q. You said that having been in the
- 23 business for 20 years, you didn't need to do this
- 24 much work to show that, apparently, your belief
- 25 that the Casino Data Systems specification was

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| Page | 181 |
|------|-----|
| | |

1 horrible, correct?

2 A. Yes.

Q. What I want to ask you is: When you 3

4 say you knew better, were you also referring to

5 that you knew better than to take proprietary CDS

6 information and analyze it for Acres' purposes?

A. Well, I still don't know that this is 8 proprietary CDS information. It says CDS on it,

9 but it refers to the Bodenstab interface.

But as far as analyzing it, every 10

11 message you implement between systems takes time.

12 The fewer messages you need to implement, the

13 better off you are.

If I can, in effect, implement three

15 messages and implement a player tracking interface

16 versus, let's just arguably say nine, you'd expect

17 that the first one would take one-third the time,

18 have one-third the bugs and take one-third the

19 testing effort.

So it would seem that this approach, 20

21 just from looking at this CDS document, would be 22 three times, roughly, three times slower, buggier,

23 and harder to implement.

24 So I would then never go through some

25 sort of detailed analysis. I would never analyze

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1 something I never wished to implement.

Q. Doesn't it appear, based on your

3 knowledge of software programming and what is in

4 these documents we're discussing, that someone has

5 reviewed the CDS engineering specification so that

6 they could make something better and improve upon 7 it?

MR. RIEDINGER: Objection. Calls for 9 an opinion, the question is argumentative, and it's

10 asked and answered.

11 THE WITNESS: I am not sure how

12 having these two documents would lead someone to a

13 better design.

If I look at a Van Gogh, I can't

15 paint something better. It has to be in me. If I

16 look at a bad design and come up with something

17 better, it needs to come from within me.

18 BY MR. DOWELL:

19 Q. But if you look at a hole, you know

20 to step around it, right?

21 MR. RIEDINGER: Objection. That

22 question is argumentative.

THE WITNESS: It's not necessarily

24 obvious, at least to the person at CDS or Bodenstab

25 that designed this, that it was a hole.

MR. RIEDINGER: Mr. Dowell, it is

2 apparent that you are trying to get the witness

3 with these argumentative questions to change his

4 testimony. You know that that's improper.

I request that you refrain from doing

6 so. Simply ask questions that you can get

7 answers. But to argue with the witness to suggest

8 that he might have some different testimony is

9 completely improper.

10 MR. DOWELL: I am, in fact, not

11 trying to get the witness to change his testimony.

12 We're quite content with what he's got, and I am

13 just trying to get yet more.

MR. RIEDINGER: You are, in fact,

15 arguing with the witness and suggesting that he

16 should give different answers. That is expressly

17 what your questions are.

18 MR. DOWELL: No, they are not, and we

19 will let the record speak for itself on that.

20 BY MR. DOWELL:

21 Q. Earlier, I asked about what you meant

22 when you said you knew better, and I asked if you

23 were referring to that you knew better than to take

24 proprietary CDS information and analyze it for

25 Acres purposes.

Page 184

And you said that the approach of 2 looking at the CDS document would be three times

3 slower, buggier, and harder to implement, so that

4 you would never go through some sort of detailed

5 analysis of the CDS document.

MR. RIEDINGER: This is the second 6

7 time you have read that answer back to him.

8 MR. DOWELL: No, it's not.

9 MR. RIEDINGER: Yes, it is.

10 MR. DOWELL: No, it's not.

11 MR. RIEDINGER: I am not going to

12 argue with you.

13 MR. DOWELL: You are arguing with me

14 on it.

15 MR. RIEDINGER: I am just placing my

16 statement on the record, and you proceed.

17 MR. DOWELL: I am arguing with you

18 about it, and if you choose to repeat your

19 statement, then I will repeat my argument.

MR. RIEDINGER: Please, please, 20

21 settle down, Mr. Dowell.

MR. DOWELL: You need to settle

23 down. I don't know why you are being so agitated

24 about this.

22

25

MR. RIEDINGER: Calm down.

Page 185 MR. DOWELL: What is not calm about 1 document. 2 what I am doing? O. And Casino Data Systems is Acres' MR. RIEDINGER: Please just proceed 3 primary competitor? 4 to ask your questions. MR. RIEDINGER: Objection. Calls for MR. DOWELL: Okay. I will. 5 an opinion. 6 BY MR. DOWELL: THE WITNESS: I would say that the Q. You stated you would never go through 7 primary competitor to CDS would be IGT or Bally, 8 some sort of detailed analysis. 8 both of which have more installed systems than My question, though, was: When you 9 Acres. 10 said that you knew better, were you also referring 10 BY MR. DOWELL: 11 to you knew better than to take proprietary 11 O. Do you know approximately how long it 12 information from CDS? 12 took CDS to develop its gaming software -- or, MR. RIEDINGER: Objection. Asked and 13 gaming and slot machine control system? 13 14 answered. A. I believe the company was founded THE WITNESS: Yeah. I am going to 15 sometime around three or four years before I joined 16 have to object and say asked and answered on that 16 it. Sometime in that time. 17 one too. Q. So how long did it take CDS to 17 I don't characterize this as 18 develop -- let me ask you this. 19 proprietary information from CDS, first of all. It 19 Can you estimate in engineering 20 refers to a Bodenstab interface. 20 man-hours how long it took CDS to develop its Yes, it's a CDS document. As I said 21 21 software or slot machine control system? 22 before, Bodenstab does not have a documentation 22 MR. RIEDINGER: Objection. Calls for 23 department. I find no reason to believe that this 23 speculation. 24 would not be Bodenstab's information as much as 24 THE WITNESS: That's really hard. 25 CDS. 25 You can estimate how long it would Page 186 Page 188 MR. RIEDINGER: The question also 1 take to do a piece of software. CDS didn't just do 2 assumes that the information is proprietary to 2 this. It did an early investigation and then 3 someone, which, of course, is not, in fact, 3 upgraded it and upgraded it and upgraded it, and 4 testified to. 4 you know, that is basically impossible to estimate. 5 BY MR. DOWELL: 5 BY MR. DOWELL: Q. Didn't you testify earlier that Q. So you can't give a reasonable 6 7 packet formats were proprietary information? 7 estimate of that? A. Packet formats? I don't recall. A. No. Predicting software development 9 Certainly, some packet formats may be proprietary. 9 time is an incredibly hard task. Q. Does the information shown on 10 10 Q. How about the time it took Acres to 11 3006314, in fact, show packet formats? 11 develop its Wizard system? 12 A. That appears to show packet formats. A. Well --12 13 It sure does. 13 MR. RIEDINGER: That's not a Because some packet formats may be 14 question. That's a statement. 15 proprietary does not mean all packet formats are 15 BY MR. DOWELL: 16 not proprietary. Q. Can you give a reasonable estimate of 16 17 Q. Do you have any reason to believe 17 the time it took Acres to develop its Wizard 18 that the packet formats shown in 3006314 are not 18 system? 19 proprietary? 19 A. I can given the same sort of estimate 20 A. I can't characterize it without 20 I gave in answer to the CDS question. 21 knowing who created them and why. Acres has been in business longer and 21 22 Q. So is your answer "No"? 22 developed the first on-line slot system. It's been A. The answer is: I can't answer -- I 23 upgrading it from there. So, you know, sometime

25

24 can't tell you whether I think they're proprietary

25 or not without more information than this

24 in, what, an extra year or two more than CDS.

I mean, certainly many of the

Page 189

1 database schema formats are an upgrade of the

2 previous Paradox system and/or the work they did

3 with IGT.

Q. Who else at Acres, to your knowledge,

5 had access to the Casino Data Systems engineering

6 specifications that starts at Bates No. 3006309?

A. I would assume from the time I

8 received the document from Pat Powers that it would

9 probably be myself and Perry Waldner.

O As to who might have seen it before

11 Pat gave it to me, I have no knowledge of, and my

12 file cabinet wasn't locked, so presumably, someone

13 could have gotten in and seen it. But I pretty

14 much believe it gathered dust.

15 Q. It wasn't gathering dust when someone

16 made the spreadsheet in 3006625, correct?

17 MR. RIEDINGER: Objection. It's

18 argumentative.

THE WITNESS: We don't know whether

20 this was created before or after I got the document

21 and by whom.

We don't even know that someone at

23 Acres created it.

24 BY MR. DOWELL:

25 Q. Do you know what those numbers down

1 tracking interface.

Q. For the player tracking interface?

3 A. They used probably hunks for, you

4 know, the rest of the system, one of which is

5 actually documented in 3006628.

Q. The message packets for the player

7 tracking interface, where do those packets of

8 information travel with respect to that?

9 A. They travel from BIF to whatever

10 matching piece of AS/400 code receives them.

11 Q. So at Mandalay Bay, that is the

12 Bodenstab software?

13 A. Yes.

14 MR. RIEDINGER: Objection. Assumes

15 facts not testified to.

16 BY MR. DOWELL:

Q. Now, your statement says that

18 sometime in 1998 was when Mr. Powers provided you

19 with the CDS documents that we have been

20 discussing.

17

22

24

21 A. That's correct.

Q. Can you be more specific on when in

23 '98 that was?

A. It was relatively soon after I

25 started and presumably before Perry Waldner was

Page 190

1 the one column there mean, "Type 10-A, 15-A, 15-A,

2 1-A"?

3 A. They look to match the column, "Bytes

4 Required" in the CDS document. In data format.

Q. Could one use this chart that is

6 shown in 3006625 to come up with fewer message

7 formats for a system?

8 MR. RIEDINGER: Objection. Calls for

9 speculation.

10 THE WITNESS: Someone could do

11 anything. I can't -- I don't know.

12 I mean, it wouldn't help me. I can

13 answer it that way. In fact, these documents

14 really are the same as this one, just in different

15 format.

16 BY MR. DOWELL:

17 Q. Someone has just manipulated the

18 date?

19 A. Yeah. It looks like they pretty much

20 put it in a different format, you know,

21 word-for-word.

Q. These type of message formats, I

23 think you said Acres ended up using three message

24 packets?

25

A. Yes, that's correct. For the player

Page 192
1 hired. So I would guess it would be in the month

2 of September.

3 MR. DOWELL: Why don't we take a

4 break.

5 (There was a recess taken.)

6 (Exhibit 315 was marked for

7 identification.)

8 BY MR. DOWELL:

Q. I will give you a document that I

10 have marked as Exhibit 315. It appears to be an

11 Acres document with the title "Player Tracking

12 Interface Specification, Version 1.07," Bates

13 No. 3006579 through -96.

Could you describe what this document

15 is?

14

18

22

25

16 A. This appears to be a player tracking

17 interface specification, Version 1.07.

Q. What is that?

19 A. This looks to be the description of

20 the Acres interface between Bodenstab and Acres.

21 Yeah

Q. So if I wanted to compare Acres

23 interface with CDS's interface, could I compare

24 this document with what is in Spencer 453?

MR. RIEDINGER: Objection. Assumes

| - 1 | Page 193 | T | Page 195 |
|--|--|--|---|
| | 1 facts contrary to his testimony. | Ί, | MR. DOWELL: So your objection is |
| | 2 THE WITNESS: Could I hear that | | that it was asked and then answered? |
| - | 3 question again. | 3 | |
| | 4 BY MR. DOWELL: | 4 | MR. DOWELL: So is it your position |
| - | 5 Q. If I wanted to compare Acres' | 5 | that his answer, "I don't know who put that on |
| | 6 interface with CDS's interface, could I compare | 1 | there" was responsive to my question? |
| | 7 this document, Exhibit 315, with the documents we | 7 | |
| ļ | 8 talked about in Spencer 453? | 8 | responsive to your question. |
| ı | 9 MR. RIEDINGER: Same objection. | 9 | |
| 1 | O THE WITNESS: I don't know if it | 10 | I put an objection on the record, and you can |
| l l | 1 would be everything you would need, but it would be | , | proceed to your next question. |
| 1 | 2 a good start. | 12 | |
| 1 | 3 BY MR. DOWELL: | 13 | objections are ground when you have grounds for |
| · 1 | Q. Is this document marked proprietary | 14 | your objection, I correct my questions. When you |
| 1 | 5 by Acres? | 15 | don't, I ignore them. When they're nonsensical, I |
| 1 | A. I see on the second page, it is. | 16 | have to ask questions to figure out what you're |
| 1 | 7 Yeah. It looks to be. | 17 | talking about. |
| 1 | Q. Does this document show message | 18 | MR. RIEDINGER: Please just proceed |
| 1 | package formats that Acres uses in its interface? | 19 | and ask questions. We don't have to go through |
| 2 | | 20 | this. |
| 2 | | 21 | THE WITNESS: Let me just jump in |
| 2 | · · · · · · · · · · · · · · · · · · · | 22 | here. |
| 2 | Formats," which would be page 10. | 23 | I see on the bottom of this a Bates |
| 2 | (| | stamp, I see a message that says, "Proprietary |
| 2 | the document, correct? | 25 | Message." All three are in a different font and |
| | Page 194 | ĺ | Page 196 |
| | _ | l | |
| 1 | A. Yes. | 1 | format from the rest of the document. |
| | Q. These are all marked "Proprietary and | 2 | format from the rest of the document. I don't know whether any of these |
| | Q. These are all marked "Proprietary and Confidential Information of Acres Gaming," correct? | 3 | format from the rest of the document. I don't know whether any of these stamps was put on at the time of document |
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| | Q. These are all marked "Proprietary and Confidential Information of Acres Gaming," correct? A. That's what is on this document now. Q. So is it your understanding from looking at that, Acres considers these message | 2 3 4 5 6 | format from the rest of the document. I don't know whether any of these stamps was put on at the time of document preparation or by whom. This is a copy I am looking at. I can't tell. I am trying to be responsive. |
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| 10 11 12 12 13 14 15 16 17 18 19 20 21 22 23 24 | Q. These are all marked "Proprietary and Confidential Information of Acres Gaming," correct? A. That's what is on this document now. Q. So is it your understanding from looking at that, Acres considers these message formats proprietary? MR. RIEDINGER: Asked and answered. THE WITNESS: I don't know who put that on there. BY MR. DOWELL: Q. My question is whether it was your understanding from reading this and based on your knowledge in the industry whether Acres, and your knowledge from your experiences at Acres, whether Acres would consider these messages to be proprietary? MR. RIEDINGER: You just asked that question; he just gave you an answer. MR. DOWELL: The answer he just gave me was he doesn't know who put that on there. That is not responsive to my question. Q. Please answer again. MR. RIEDINGER: You asked that | 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 | I don't know whether any of these stamps was put on at the time of document preparation or by whom. This is a copy I am looking at. I can't tell. I am trying to be responsive. BY MR. DOWELL: Q. I will represent that the mark that has the court's number on it and that Bates number, the 30065379, and on up document, those were put on by the attorneys afterwards. Have you ever seen any Acres documents that were marked with this information in the footer starting on the second page that says: "This document contains proprietary and confidential information of Acres Gaming, Inc., not to be used, copied or disclosed without written permission. All rights reserved"? A. Certainly, Acres uses proprietary |

25

24 statement, so I object.

23 "corresponds."

25

24 BY MR. DOWELL:

Q. You can answer.

Page 200

Page 197 A. There is no correspondence. The interfaces are completely 2 3 different in the following method.

Q. Irrespective of this statement on the 2 document, which you may take as you will or 3 disregard if you choose, my question is: Does 4 Acres consider, based on your experiences at Acres, 5 the message formats shown in this document from 6 page 10 back to page 18 proprietary information? MR. RIEDINGER: Asked and answered. 7 THE WITNESS: This document would be 9 absolutely useless unless it was shared with 10 whoever was implementing the interface. So 11 certainly, it needs to go outside of Acres. 12 So I would consider that they 13 wouldn't consider it as proprietary as, say, 14 message formats that they use internally to some of 15 their bonusing systems, which they absolutely 16 consider proprietary. 17 BY MR. DOWELL: Q. So they consider it somewhat 19 proprietary but not as proprietary as some other 20 things? 21 MR. RIEDINGER: Is that a question? 22 MR. DOWELL: Yes, it is.

MR. RIEDINGER: It's phrased as a

THE WITNESS: I didn't characterize

The CDS interface is apparently 5 encoded in this document, is designed to 6 synchronize two databases. So for instance, a player enrollment 8 message and the account change information and the 9 change OCR message and the primary, secondary --10 perhaps the primary-secondary player points message 11 is all designed to adjust and keep the two sides in 12 sync.

Whereas, on page 10, the player 13 14 message in the Acres system, it has no particular 15 reason for being sent. And whenever it is sent, it 16 overwrites whatever exists on the Acres cash. 17 So it doesn't synchronize the two. 18 It just drops in there. If there was no record in 19 there, it will be there. And regardless of whether 20 an OCR number was changed, someone got married, the 21 name changed, regardless of that they got a new 22 card number, who knows, we have no clue of that, 23 unlike the CDS document. This message just comes 24 in, and we believe it. There is no synchronization

Page 198

15

16

25

25 issue.

Q. Does the Acres interface

2 specification require fewer message packets because

3 it only sends information one way? A. Well, information goes in both

5 directions, but, you know, the player information 6 certainly only goes one way, and the ratings only

7 go the other way. There's no attempt to do any

8 kind of synchronization or anything or maintain

9 equal or compatible bases.

10 Q. That is a good point. Let me ask the 11 question differently, then.

12 Because there is no synchronization 13 aspects, does the Acres' interface require fewer 14 message packets than the CDS interface?

A. That's one reason, yes.

O. Are there any other reasons?

A. Yes. For instance, the completed 17 18 ratings message in the Acres system is merely an

19 indication that something has happened that

20 developed a ratings, which is a common gaming term,

21 going back to table games, on the player's side. 22 For instance, it could be a jackpot,

23 it could be a hand-pay, it could be a bonus, it

24 could be just a normal play.

Whereas, for instance, over on this

1 this document, and I am not certain how, say, the 2 legal department or my boss would characterize it. 3 BY MR. DOWELL: Q. Would you agree with me that the 5 pages 10 through 18 have a designation on them --6 A. Absolutely. 7 Q. -- that says: 8 "This document contains 9 proprietary and confidential 10 information of Acres Gaming, 11 Inc."? 12 A. Absolutely. 13 Q. The first one on page 10 is a player 14 message. 15 A. Uh-huh. Q. Could you look at the Spencer 453, 16 17 and tell me if that message corresponds with any of 18 the messages shown in the Casino Data Systems 19 engineering specification? 20 MR. RIEDINGER: Objection. Assumes 21 facts not testified to, and contrary to the past 22 testimony. Also is ambiguous, the term

| 14) | Compacy Com | - | Selt: July 13, 177 |
|-----|---|-----|---|
| Ī | Page 20 | 1 | Page 20 |
| | document, it appears there's multiple messages of | 1 | BY MR. DOWELL: |
| : | all different sorts of kinds to do the same thing. | 2 | Q. Can you compare the way the message |
| 3 | So, again, there's no exact | | packets are defined in this July 9th, 1998 document |
| 4 | correspondence between how they work. | 4 | with the way the message packets are defined in |
| ! | Q. Referring to the front page | 5 | Version 1.07 that has a date of January 15th, 1999 |
| 10 | A. Of which document? | 6 | on it? |
| 1 7 | Q. Of Exhibit 315. | 7 | A. It could take some time. I mean, |
| 8 | A. Uh-huh. | 8 | obviously, I feel that that's probably something I |
| 9 | Q. Under "Revision 1.03," on | 9 | could do. |
| 10 | December 4th, 1998, it says: | 10 | Q. Can you, in general terms, make that |
| 11 | "Change to format of original | 11 | comparison? |
| 12 | player tracking interface | 12 | A. It looks somewhat similar in scope. |
| 13 | specification." | 13 | I mean, if you look at the union on |
| 14 | Do you know what that means? | 14 | page 6, it shows four packets, and the parmdata is |
| 15 | A. It doesn't make much sense to me. | 15 | one that we chose not to use. The other ones are |
| 16 | I'm not certain how to interpret it better for | 16 | there. Their names have changed. |
| 17 | you. I'd suggest Perry. | 17 | Q. Why does it go from having this |
| 18 | You know what. It's coming back to | 18 | what did you call this language? |
| 19 | me, actually. I remember, I think, what it was. | 19 | A. This is C. |
| 20 | You're going to think this was stupid. | 20 | Q. C? |
| 21 | I remember Pat got very mad at Perry | 21 | A. C Plus Plus, actually. |
| 22 | because Perry changed where the page numbers or | 22 | Q. Why did you go from the C Plus Plus |
| 23 | headings were, and Perry literally had to go in and | 23 | language to kind of the spreadsheet box format that |
| 24 | just adjust margins and stuff like that so it | 24 | is in Version 1.07? |
| 25 | matched Pat's format. | 25 | MR. RIEDINGER: Objection. Assumes |
| | Page 202 | | Page 204 |
| 1 | Q. Let me give you a document that has | ı | that he wrote it. |
| 2 | previously been marked as Bodenstab Exhibit 364. | 2 | THE WITNESS: I think you'd have to |
| 3 | Is this an earlier version of the | 3 | ask the author. I mean, I guess, Pat liked it one |
| 4 | interface specification that we were just talking | 4 | way, and Perry liked it the other. |
| 5 | about? | 5 | BY MR. DOWELL: |
| 6 | A. It looks to be. | 6 | Q. Whose format is whose, if you can |
| 7 | Q. It says in the box that it is Version | 7 | tell? |
| • | 1.01, but I see in the revision history that there | 8 | A. Well, on the older document that only |
| 9 | is a 1.02. | 9 | has Pat Powers' name on it, it only shows the C |
| 10 | Does that make sense? | 10 | format, and on the newer document, where the last |
| 11 | A. Well, it looks like someone wasn't | 11 | three revisions are all Perry, it shows the box |
| | thorough one way or another and didn't update it | 12 | format. |
| 13 | properly. | 13 | Q. So it appears that Perry |
| 14 | Q. Does this version of the interface | 14 | A. Liked boxes. |
| 15 | specification include those message packets? | 15 | Q. He also used he didn't use, I |
| 16 | MR. RIEDINGER: Objection. Ambiguous | 16 | should say, the C Plus Plus format for describing |
| 17 | what you mean by "those message packets." | 17. | the message packets? |
| 18 | THE WITNESS: Well, it certainly | 18 | A. That's correct. |
| 19 | includes message packets. They're different. | 19 | Q. Now, sometime between this earlier |
| 20 | They've been modified as the versions have | 20 | version of the interface specification and this |
| 21 | changed. | 21 | later version, the CDS interface specification was |
| 22 | In this document, Bodenstab 364, the | 22 | circulated at Acres, correct? |
| | message packets start on page 6 and are defined in | 23 | A. I wouldn't know. I mean, the date of |
| 24 | a C language method rather than a sort of table | | this is 7-14-98, which is before I was employed |
| 25 | method. | 25 | there, and I don't know when the CDS documents |
| Ľ | | | |

| 141 | Artin Dempsey Cond | | July 13, 1777 |
|----------|--|----------|--|
| | Page 205 | | Page 207 |
|] 1 | first came to Acres. It could be before or after. | | free to review as much of the document as you need |
| 2 | Q. As far as the circulation that you | | to, if you have an understanding of what is meant |
| 3 | were aware of, whenever it was provided to you, | | there by "to avoid infringing on the development of |
| 4 | that was between July of '98 and January of '99? | 4 | bonuses themselves." |
| 5 | A. Certainly, I saw the CDS document | 5 | A. Let me just take a second. |
| | after this was produced because I wasn't even | 6 | Q. Sure. |
| 7 | employed and before this one. | 7 | A. I think I can make an estimate of |
| 8 | | 8 | · · · · · · · · · · · · · · · · · · · |
| 9 | what you are referring to, for the record? | 9 | |
| 10 | | 1 | had offices in Corvallis, Oregon, and Las Vegas. |
| | version, which is 1.01, dated 7-14-98. And I | | And the firmware and all of the bonuses, which are |
| | started in September, and I certainly saw the CDS | | in imbedded boxes, they're not in normal PCs, were |
| | documents before the Exhibit 315, which is dated | 13 | all developed up in Oregon. |
| | 1-15-99. | 14 | |
| 15 | | 1 | beginning of the decision to do the development of |
| 1 | severance package when you left Acres? | | the Wizard system here in Las Vegas rather than |
| 17 | A. I believe I got three days of | | using those people that were working up there in |
| ı | vacation that was due. | l | Oregon. |
| 19 | Q. And when did you leave Acres? I have | 19 | And I actually don't know who Paula |
| | forgotten. | 1 | and Scott are. |
| 21 | A. I believe my exit date was May 14th, | 21 | Q. Do you know what the word |
| ŀ | '99. | 22 | |
| 23 | Q. Were there any conditions on | 23 | A. "Infringing"? I have a layman's idea |
| | receiving the severance of vacation days? Did you | | of it. |
| 25 | have to do anything or sign anything? | 25 | Q. In the context of this sentence. Is |
| | Page 206 | | Page 208 |
| 1 | A. Actually, employers are required by | 1 | that hurting feelings? |
| 2 | law to pay vacation that's due. | 2 | A. It probably means slowing down is how |
| 3 | Q. So there were no conditions? | 3 | I read it. |
| 4 | A. No. | 4 | Q. Okay. I see what you mean. Thank |
| 5 | Q. All right. I think we are about | 5 | you. |
| | done. | 6 | Turn back to page 3003761. |
| 7 | I give you a document that has | 7 | A. Okay. |
| | previously been marked as Spencer Exhibit 450, and | 8 | Q. In the middle of the page, it says, |
| | that is dated June 8, 1998, so I know that that is | 9 | "The sales effort." |
| | before your time at Acres. | 10 | Do you understand it appears this |
| 11 | If you could take a quick look at it, | | is a document written by John Acres. |
| | I have a question about the third paragraph. | 12 | A. Yes. |
| 13 | · · · · · · · · · · · · · · · · · · | 13 | Q. It says, "Sales effort." It says: |
| 14 | "Current thought"? Q. Right. It says: | 14 | "But that isn't all. We have |
| 16 | 10 | 15 | to sell Circus. They believe |
| 17 | | 16 | in bonuses. They don't like |
| 18 | | 17. | the price. They also don't |
| 19 | | 18 19 | know we have an accounting |
| 20 | | 20 | system. They are worried that our card readers are not |
| 21 | | 20 21 | compatible with their existing |
| 22 | | 21 22 | cards on the CDS systems. |
| 23 | | 22 23 | (This is a concern because they |
| | | 43 | • |
| 24 | themselves " | 24 | want players to be able to take |
| 24 25 | | 24 25 | want players to be able to take their card to ANY property and |

| IVI | Earth Dempsey Con | uen | scit: July 15, 1993 |
|-----|--|-----|--|
| | Page 20 | 9 | Page 21 |
| 1 | use it) and they don't want to | 1 | reverse engineer it, you could be guilty of some |
| 2 | throw away their CDS | : | problem. |
| 3 | investment." | 3 | Q. Are you required to have a garning |
| 4 | Now, reading that, does it appears | 4 | license in your role? |
| 5 | that Mr. Acres is reporting that Circus wanted to | ! | A. CDS required me to have one. |
| 6 | be able to use CDS cards at any property? | 1 | I don't recall Acres mentioning it as |
| 7 | MR. RIEDINGER: Objection. Calls for | 7 | a requirement for employment. I do own one, do |
| 8 | speculation, lacks foundation. | 8 | have one. |
| 9 | | 9 | Q. Have you ever been turned down for |
| 10 | equally worried that people couldn't take Mandalay | 10 | one? |
| 11 | Bay cards, which would be Acres format, to Luxor. | 11 | A. No. |
| 12 | It doesn't state which direction they're concerned | 12 | Q. Do you have any understanding of what |
| 13 | about; just compatibility. | 13 | it means for a system to be event-based versus |
| 14 | BY MR. DOWELL: | | meter-based? |
| 15 | Q. Prior to reading this, were you | 15 | A. Some systems, like Bally's system, |
| 16 | aware had you ever heard that this was a | 16 | are nonrealtime systems. They are truly |
| 17 | concern of Circus? | 17 | event-based in that unless something happens, you |
| 18 | A. No. This is way above my level and | 18 | get no signal from the slot machine or SMIB. |
| 19 | before my time. | 19 | Other systems, you know, constantly |
| 20 | People have certainly talked about | 20 | get meters. I believe that's what that is. |
| 21 | doing cross-property for years. | 21 | Whether an event happens or not. |
| 22 | Q. During your work, that wasn't on your | 22 | Q. Did you have contact with John Acres |
| 23 | mind as a goal for the programming that you did? | 23 | ever in your responsibilities at Acres? |
| 24 | A. No. In fact, accidentally, as we | 24 | A. A couple times. I mean, he came into |
| 25 | discussed, where the Luxor cards work wrong at | 25 | my office and saw me. He was actually quite |
| | Page 210 | | Page 212 |
| 1 | Mandalay Bay, because of events outside of Acres' | | surprised to see that I had been hired by Acres. |
| | control, if Circus ever would want to try and do | 2 | |
| - 1 | cross-property, they would have to reissue | 3 | |
| 4 | potentially millions of dollars worth of cards. | 4 | previously at Gamma, and he, I guess, assumed that |
| 5 | | | someone would have told him or asked him before |
| 6 | reverse engineer CDS products during your time at | 6 | they hired me. |
| 7 | Acres? | 7 | Q. What was Gamma? |
| 8 | A. No. And if I was, I would have | 8 | A. Gamma is the Gaming Manufacturers |
| 9 | jumped up and down. | 9 | Association. And this is an association of |
| 10 | Q. What is your understanding of reverse | 10 | manufacturers that, at least at one time, included |
| 11 | engineer? | 11 | CDS, IGT, Acres, and about 17 other companies that |
| 12 | A. Well, there's basically two types of | 12 | are working to come up with common, nonproprietary |
| 13 | reverse engineering: legal and illegal. | 13 | message protocols for everything so the equipment |
| 14 | Reverse engineering is generally | 14 | interoperates. |
| 15 | taking the end results of a system and trying to | 15 | Q. Has it been a goal in the past for |
| 16 | work back to original principles. And in some | 16 | some companies to have proprietary communication |
| 17 | cases, this is reasonable and normal and is | 17 | protocols so that systems are not compatible? |
| 18 | commonly done, say, for instance, if Acres lost an | 18 | A. The only one I can think of is IGT. |
| 19 | employee, and they had a card reader format, they | 19 | Most of the time, it just causes trouble because |
| 20 | may try to figure out what happened. Or if they | 20 | you have to do things three or four times. The big |
| 21 | lost the source code, they would actually try and | 21 | guy likes to lock people out. |
| 22 | go backwards. It's actually quite hard. | 22 | Q. Have you ever heard the term "to |
| 23 | Obviously, if you have a piece of | 23 | midget a request"? |
| 24 | software or hardware that contains proprietary | 24 | A. "To midget a request"? I don't know |
| 125 | information where they've asked you not to and you | 125 | that one |

25 that one.

| Γ | Page 213 | | | Page 215 |
|----------|--|--------|---|-----------|
| | Is that Australian? | 1 | A. That's correct. | _ |
| 2 | Q. I don't know. | 2 | MR. RIEDINGER: No further | |
| 3 | Have you ever heard someone being | 3 | questions. | |
| 4 | referred to as wired? | 4 | MR. DOWELL: Thank you, Mr. Demps | sey. |
| 1 5 | A. Wired? In the nontechnical sense, | 5 | (The deposition was concluded | |
| 1.6 | s someone who has been like jiggy on coffee and, you | 6 | at 4:10 p.m.) | |
| 7 | know, vibrates. | 7 | , | |
| 8 | Q. Is there a technical sense or a use | 8 | **** | |
| 9 | of the word within Acres that you have heard? | 9 | | |
| 10 | A. Not within Acres, but I have also | 10 | | |
| 11 | heard another meaning where you say someone is | 11 | | • |
| 12 | wired, i.e., they are hooked into stuff, maybe they | 12 | | |
| 13 | are, you know, listening or have contacts or | 13 | • | |
| 14 | something. | 14 | | |
| 15 | MR. DOWELL: All right. I have no | 15 | • | |
| 16 | further questions. | 16 | | |
| 17 | MR. RIEDINGER: I have one short | 17 | | |
| 18 | clarification. | 18 | | |
| 19 | i | 19 | | |
| 20 | EXAMINATION | 20 | | |
| 21 | BY MR. RIEDINGER: | 21 | | |
| 22 | Q. I would like to talk about the | 22 | | |
| 23 | physical location of the Bodenstab and Acres | 23 | | |
| 24 | software. | 24 | | |
| 25 | First, the Bodenstab player tracking | 25 | | |
| <u> </u> | Page 214 | | | Page 216 |
| l | software. Does that reside on an AS/400 computer? | 1 | CERTIFICATE OF DEPONENT | 1 agc 210 |
| 2 | | | PAGE LINE CHANGE REASON | |
| 3 | Q. Does the Bodenstab player tracking | 3 | THOS: DELLO CLIENCE NEW MONTH | |
| 4 | software reside on an AS/400 computer? | 4 | | |
| 5 | A. That's my information. | 5 | • | |
| 6 | Q. Where is that AS/400 located? | 6 | | |
| 7 | A. I don't actually know. I think it's | 7 | • | |
| 8 | at the Luxor. I've never seen it. | 8 | | |
| 9 | Q. Is it at the Mandalay Bay casino? | 9 | | |
| 10 | A NT- Int Yet. 1 | 10 | | ļ |
| 11 | Abo - second | 11 | | |
| 12 | 0 Th- A 177 1 6 | 12 | | İ |
| 13 | | 13 | | |
| 14 | . 771. A 3377 1 C | 14 | | j |
| 15 | | 15 | | Ì |
| | Day against the same of the sa | 16 | * * * * | |
| 17 | | | I, Martin Dempacy, deponent herein, do hereby certify and declare the within and foregoing | |
| 18 | as she t'annang | (| transcription to be my deposition in said action; that I have read, corrected and do hereby affix my | |
| 19 | . ^ . | | signature to said deposition. | |
| 20 | | 20 | | |
| 21 | | 21 | Martin Dempsey, Deponent | |
| | :10 | 22 | Junpon , soponem | |
| 23 | | 23 | Subscribed and sworn to before me this day of 1999. | |
| 24 | , | 24 | ,, | 1 |
| 25 | | 25 | | - 1 |

| 14-98 | | | | | 100 | | | 7 | | | 1453 | | 13, 199 |
|--|------------------------|-----------|---------------|----------|---------|------------------|-------------|----------|----------------|--------------|----------|--------------|-----------|
| 1377 n | l | | 93:8 | | | | 75:9 | 111:6 | 112:12 | 113:18 | | | 109:23 |
| 1377 (1) 2.20 13.27 13.21 13 | | | | | t . | | | | | 112.25 | | | |
| 1200 m 130 1 | \$2 [1] 30:: | 21 | | | | | | | | | | | |
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| 12-10 10-23 10-2 | '50s m 26: | 25 27.24 | | | | | | 1 | | | 485 [5] | 20:20 | 20:22 |
| 94 m) 5-88 12:05 m) 100:25 m) 5-88 12:05 m) 100:25 m) 5-88 12:05 m) 100:25 m) 5-88 12:05 m) 100:25 m) 5-95 m) 5-88 13:04 m) 100:25 m) 10 | | | | 100:23 | | | | | | | | | 134:5 |
| 12.53 19.00 19.1 | | | 12:05 [1] | 100:25 | | 21 [38] 44:22 | | | | | 4:10 [1] | 215:6 | |
| 13 | | | 12:53 [1] | 100:25 | | | | 1 | | | 4th [2] | | 201:10 |
| 12-15 12-1 | | | 13 [4] 1:16 | 130:23 | | | | | Z 8 [2] | 171:6 | l | | |
| 48.16 110-3 112-13 144 11 43 | | | | :9 | | | | 1 | 21 | 191.14 | | -5- | |
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| 12 | UNITED STATES I | DISTRICT COURT | | | | | |
| 13 | DISTRICT OF NEVADA | | | | | | |
| 14 | | 1 | | | | | |
| 15 | MIKOHN GAMING CORP., | NO. CV-S-98-1383-HDM (LRL) | | | | | |
| 16 | Plaintiff, | (Base File) | | | | | |
| 17 | v. | | | | | | |
| 18 | ACRES GAMING INC., | REBUTTAL STATEMENT BY EXPERT WITNESS WILLIAM K. | | | | | |
| 19 | Defendant, | BERTRAM, PH.D | | | | | |
| 20 | 1 | | | | | | |
| • | ACRES GAMING INC., | | | | | | |
| 21 | ACRES GAMING INC., Plaintiff, | | | | | | |
| 21 | | | | | | | |
| 21 22 23 | Plaintiff, v. MIKOHN GAMING CORPORATION; NEW | | | | | | |
| 21 22 23 24 | Plaintiff, v. MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & CASINO | | | | | | |
| 21 22 23 24 25 | Plaintiff, v. MIKOHN GAMING CORPORATION; NEW | | | | | | |
| 21 22 23 24 25 26 | Plaintiff, v. MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & CASINO DATA SYSTEMS; and SUNSET STATION | | | | | | |
| 21 22 23 24 25 | Plaintiff, v. MIKOHN GAMING CORPORATION; NEW YORK NEW YORK HOTEL & CASINO DATA SYSTEMS; and SUNSET STATION HOTEL & CASINO, | | | | | | |

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I. Introduction

I am William K. Bertram. I have been retained as an expert witness by Plaintiff Acres Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted an Expert Witness Report, dated February 15, 1999, which I incorporate into this rebuttal statement. In that Report, I describe my technical background and qualifications, and I discuss my opinion that Defendant Casino Data Systems ("CDS") infringes at least claims 10 and 19 of U.S. Patent No. 5,752,882 ("the '882 patent").

I also previously submitted a declaration on May 20, 1998, demonstrating CDS's infringement of claim 10 of the '882 patent. I further submitted a second declaration dated October 5, 1998, demonstrating that the invention described and claimed in the '882 patent is neither taught nor enabled by published U.K. patent application GB 2151054A ("the U.K. '054 application"). I incorporate these declarations into this rebuttal statement. Finally, I have given testimony in my deposition of September 29, 1998, which addresses many of the positions I describe here.

Evaluation Summary of Mr. Prohofsky's Report II.

I have reviewed the Expert Witness Report of Leroy A. Prohofsky. I disagree with Mr. Prohofsky's conclusions, which he summarizes in § III of that Report. Specifically, I believe that claims 10 and 19 of the '882 patent are not anticipated by the Acres Concept III document. I also believe that claims 10 and 19 are not anticipated by the Form SB-2 registration statement submitted by Acres to the U.S. Securities and Exchange Commission. Further, as I demonstrated in my second Declaration, claim 10 of the '882 patent is not anticipated by the U.K. '054 application.

As stated in my Expert Witness Report of February 15, 1999, I have extensive experience

in gaming product design. I believe that one skilled in the art of gaming device design would not, in 1993, have found it obvious to create the invention of claims 10 and 19 of the '882 patent given the then current state of the art.

I believe that the claim terms "command" and "predetermined event" used in claims 10 and 19 of the '882 patent are not vague. Indeed, the '882 patent specification provides a number of examples of such commands and predetermined events. These examples provide clarity to the claim terms, not ambiguity or vagueness as erroneously maintained by Mr. Prohofsky. Further, given the understanding of a person skilled in the art of gaming device design, the claim terms "command" and "predetermined event" are well understood and unambiguous.

As I have previously demonstrated in my Report of February 15, 1999, I believe that at least claims 10 and 19 of the '882 patent are infringed by CDS.

III. Analysis

A. Concept III and SB-2

The majority of Mr. Prohofsky's report asserts that the technical disclosure in the '882 patent specification and figures is no more enabling of the invention of claims 10 and 19 than the brief descriptions included in such documents as the Concept III document and the SB-2 registration. Mr. Prohofsky selects only portions of the '882 patent specification description to compare to portions of the Concept III document or SB-2 registration. Mr. Prohofsky ignores the large difference between the thorough technical disclosure of the '882 patent specification and the brief descriptions included in the Concept III document and SB-2 registration. The '882 patent includes 14 hardware drawings, 22 software flow charts, and more than 30 columns of accompanying technical description. The enormous difference in technical disclosure of these documents shows Mr. Prohofsky's assertion to be erroneous.

I have reviewed the Concept III document and the SB-2 filing. I had previously examined these documents during my deposition of September 29, 1998. My opinion continues to be that the Concept III document and the SB-2 filing would not teach a person of ordinary skill in the art to develop a system that has the elements of claims 10 and 19 of the '882 patent. As I testified in my deposition, these documents provide only an overview of what might be done, without providing any details at all. That is, the SB-2 and Concept III documents are statements of goals, not descriptions of how the goals are accomplished.

I note that on a number of occasions Mr. Prohofsky refers to "hav[ing] relied upon the entire teaching of both [the '882 specification and the Concept III document] in forming [his] opinion...." I must conclude that Mr. Prohofsky finds that the Concept III document teaches and enables the invention of claims 10 and 19 only after his having absorbed the teaching and enabling disclosure of the '882 patent. Absent the extensive teaching of the '882 patent, one skilled in the art of gaming device design would not find the Concept III document or the SB-2 registration teaches or enables the invention of claims 10 and 19.

B. The U.K. '054 Application

As I have previously stated in my Declaration of October 5, 1998, I believe that there are numerous and significant differences between the U.K. '054 application and the invention described and claimed in the '882 patent. For example, the U.K. '054 application describes only an electronic "bingo" game with no mention of any progressive jackpot or slot-machine bonusing, which are the focus of the '882 patent. The U.K. '054 does not describe any allocation of a portion of coins wagered to any kind of pool. The U.K. '054 makes no mention of the word "preselection" or "selection." The U.K. '054 application contains no statement that any payouts are related to any command from any host computer. I have not found any description in the U.K. '054 application

of an activity that can be called "preselection," as that term is used in the '882 patent, and as I have construed that term for purposes of demonstrating CDS's infringement of the '882 patent. Given my extensive experience in gaming device design, I believe that one skilled in the art would not find any suggestion in the U.K. '054 application for the invention described and claimed in the '882 patent.

I have also studied U.S. Patent No. 4,837,728 to Barrie et al. ("the Barrie patent"), which Mr. Prohofsky combines with the U.K. '054 application to assert the obviousness of claims 10 and 19 of the '882 patent. I have reviewed the Barrie patent, and I find it describes a progressive slot machine that would be considered conventional in 1993. The Barrie patent does not provide the above-described teaching that is missing from the U.K. '054 application. I believe that one skilled in the art of gaming device design would not, in 1993, have combined the features of the Barrie patent with the U.K. '054 application to produce a system similar to that described and claimed in the '882 patent.

C. Acres Progressive Table Games

I understand that CDS asserts that the inventions of claims 10 and 19 of the '882 patent are found in Acres' progressive table games installed in the Rio Suites Casino in August of 1993. I have reviewed the relevant portions of Mr. Vega's deposition and the exhibits pertaining to these table games, and have spoken with Acres' employees about how those games were constructed. It appears that these table games encompass conventional gaming device technology in 1993 and do not include the inventions of claims 10 and 19 of the '882 patent. In particular, these progressive table games did not include machine payout of the progressive amount. Instead, the dealer was required to recognize the occurrence of the jackpot event, and the dealer would then cause the jackpot to be awarded. The table games at the Rio were essentially a progressive meter.

incremented by a player placing a coin in a coin slot. I also understand that the Rio table games did not have the ability to preselect some of the games for operation through software. Any such changes would require revising the progressive controller's code. I understand that in operation, tables were not deactivated when not in use, but were covered with a table cloth so players would not be confused.

D. Treasure Island System

I understand that CDS asserts that the inventions of claims 10 and 19 of the '882 patent were on sale to Treasure Island prior to October 12, 1993. I am not particularly familiar with the system that was the subject of the Treasure Island purchase order. However, I do understand that the system specified included multiple controllers and a system architecture typical of then conventional progressive control systems. The networked gaming system described and claimed in the '882 patent differs significantly from that system specified in connection with the Treasure Island purchase order. I do not believe that one skilled in the art of gaming device design would, upon learning of the original specifications of the Treasure Island installation, have understood that the invention of claims 10 and 19 of the '882 patent was contemplated in that purchase order.

IV. Evaluation of Mr. Bennett's Report

I have reviewed the Expert Report of Michael J. Bennett, who has been retained by Mikohn Gaming Corporation ("Mikohn"). Mr. Bennett asserts that each of the elements of claim 10 of the '882 patent is shown in any one of the following documents: The U.K. '054 application; the SB-2 registration; and the Concept III document. My comments in connection with Mr. Prohofsky's report are equally applicable here. As stated above, I believe that any one or combination of these documents would not teach one skilled in the art of gaming device design to produce the invention described and claimed in the '882 patent.

Mr. Bennett also asserts that each and every element of claim 10 of the '882 patent is shown in U.S. Fatent No. 4,652,998 to Koza et al. ("the Koza patent"). I have reviewed the Koza patent, and f disagree with Mr. Bennett's assertion. The Koza patent does not describe the preselection feature of claim 10, and there is also no description of the claimed command issued responsive to a predetermined event. Mr. Bennett asserts that a random sampling of players constitutes the claimed "preselecting" of claim 10. There is simply no connection between the random sampling process described in the Koza patent and the claim term "preselecting," as that term is used in the '882 patent, and as I have construed that term for purposes of demonstrating Mikohn's infringement of that patent.

Mr. Bennett also asserts that U.S. Patent No. 5,280,909 to Tracy ("the Tracy patent") shows every element of claim 9 in Acres' U.S. Patent No. 5,655,961 ("the Acres '961 patent"). I have reviewed the Tracy patent, which I find describes a progressive jackpot gaming system that lacks a number of the elements described and claimed in Acres '961 patent. I also note that the Tracy patent was considered by the U.S. Patent Examiner during prosecution of Acres '961 patent, and the Examiner apparently also concluded that Acres '961 patent was distinguishable and patentable over the Tracy patent.

V. Conclusion

I believe that CDS and their expert Mr. Prohofsky are exercising hindsight reconstruction of the inventions described and claimed in the '882 patent. CDS and Mr. Prohofsky identify a number of documents that supposedly teach and enable the invention of claims 10 and 19 of the '882 patent. However, one of skill in the gaming device art in 1993 would not, upon absorbing the teaching of these documents, find '882 patent invention disclosed or made obvious. Only if one has first studied and understood the extensive technical disclosure included in the '882 patent

specification, could one then "find" the supposed teaching of this invention in the documents proffered by CBS and Mr. Prohofsky. Accordingly, I believe that CDS has failed to demonstrate that the inventions of claims 10 and 19 of the '882 patent are anticipated or obvious. Also, as I have previously demonstrated in my Expert Witness Report of February 15, 1999, I believe that CDS infringes at least claims 10 and 19 of that patent.

I also believe that Mikohn and their expert Mr. Bennett have not identified any information that would teach one skilled in the gaming device art in 1993 to make the inventions described and claimed in the Acres '882 and '961 patents. As I have previously demonstrated in my declaration of May 20, 1998, and in my Expert Witness Report of February 15, 1999, I believe that Mikohn infringes at least claim 1 of the Acres '961 patent, and at least claims 1, 2, 10, 11, and 18 of the '882 patent.

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| 13 | UNITED STATES D | ISTRICT COURT | | | |
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| 15 | | | | | |
| 16 | ACRES GAMING INC., | NO. CV-S-98-1462-HDM (LRL) | | | |
| 17 | Plaintiff, | (Base File) | | | |
| 18 | . v . | | | | |
| 19 | MIKOHN GAMING CORPORATION & CASINO DATA SYSTEMS, | REBUTTAL STATEMENT BY EXPERT WITNESS JOHN F. ACRES | | | |
| 20 | CASINO DATA STOTEMS, | | | | |
| 21 | Defendants. | | | | |
| 22 | | | | | |
| 23 | I. IN | TRODUCTION | | | |
| 24 | I am John F. Acres. I anticipate testifying at | trial both as a fact witness on issues that exist | | | |
| | _ | • | | | |
| 25 | between the parties and also as an expert witness on b | ehalt of Plaintiff Acres Gaming, Inc. ("Acres"), in | | | |
| 26 | the above-referenced action concerning United States | Patent Nos. 5,820,459 ("the '459 patent") and | | | |
| 27 | 5,836,817 ("the '817 patent"). At present, I anticipate that my testimony as an expert will include a | | | | |
| 28 | 5,556,517 (the 517 patont). The prosent, I dissolve | ,, - | | | |

rebuttal to any testimony of Leroy A. Prohofsky or Michael J. Bennett as described in their Expert Reports dated June 24, 1999 and July 6, 1999, respectively.

I have previously submitted an Expert Witness Report, dated February 15, 1999 in the other patent infringement action pending between the parties, <u>Acres Gaming Inc. v. Mikohn Gaming Corp., et al.</u>, No. CV-S-97-1383-HDM (LRL) ("the 1383 case"). I incorporate my previous expert report into this rebuttal statement.

In the 1383 case, I also previously submitted a declaration dated October 5, 1998, describing, among other things, the "Concept III" literature, the "SB-2" document, and the development of the progressive jackpot system installed at Treasure Island by Acres' predecessor, Gaming Innovations. I submitted a second declaration in the 1383 case dated May 21, 1999, in response to several motions for summary judgment filed by CDS. I incorporate such declarations into this rebuttal statement. Finally, I have given testimony in depositions taken on June 29, 1998, March 16, 1999, and March 17, 1999, which addresses many of the positions I describe here.

II. PERSONAL BACKGROUND INFORMATION AND QUALIFICATIONS

I am the Chairman and Chief Executive Officer of Acres Gaming, Inc. and have held that position since October 27, 1993, the date Acres Gaming, Inc. was formed. I have a Bachelor of Science degree in math, with a major in computer science, from Ball State University, which I received in 1976. I began software programming immediately after graduation for AW Consultants. I then worked for General Motors, where I wrote engine control software. I started the first of my companies, a sole proprietorship named ACR Consultants, shortly thereafter. ACR Consultants created software application packages for companies, including, as examples, an accounting package, an inventory package and some sound systems for a casino.

In 1981, I started a company named Electronic Data Technology ("EDT"). EDT worked within

the gaming industry, designing and installing progressive jackpot displays in casinos. I later sold controlling interest in EDT to International Game Technology ("IGT") and formed JFA Enterprises.

JFA Enterprises designed and developed the tri-color LED display used for progressive systems. Less than one year later, in 1985, I formed Mikohn, Inc. (now Mikohn Gaming Corporation) with Mike Stone. While at Mikohn I did the product designs and was the vice-president of engineering and a director. I helped Mikohn become one of the leading suppliers for progressive jackpot systems.

After I sold my interest in Mikohn, I formed Gaming Innovations, the predecessor to Acres Gaming, Inc., in 1991. At first, Gaming Innovations provided consulting services to the gaming industry. Later, Gaming Innovations began to develop, sell and install proprietary products for the gaming industry, such as slot accounting, player tracking and table game progressive systems.

Acres Gaming was founded on the belief that casino gaming is all about people having fun and feeling important, not about winning more money than is spent. Acres Gaming has conducted extensive research into the areas of enhanced celebration of winning, unusual or unexpected rewards and entertaining players while they are losing, all of which are important methods by which a casino can increase play and profits. Acres Gaming has invested heavily in the development of new gaming technology and, as a result, has grown into an industry leader in bonusing technology for use in the gaming industry.

I am the first named inventor on six U.S. Patents: 5,655,961 (issued 8-12-97); 5,702,304 (issued 12-30-97); 5,741,183 (issued 4-21-98); 5,752,882 (issued 5-19-98); 5,820,459 (issued 10-13-98); and, 5,836,817 (issued 11-17-98). I have also taught seminars at the University of Nevada at Reno's Institute of Advanced Gaming in 1997 and 1998. I was the Keynote Speaker at the South Henippler Gaming Convention in Sydney, Australia in 1998. I have also made presentations in 1997 and 1998 at the London International Gaming Show; at the I.G.W.A. show in 1997 in Las Vegas; and in 1998 at the

World Gaming Conference in Las Vegas. I have not authored any publications within the last ten years.

III. MR. PROHOFSKY'S REPORT

I have reviewed the Expert Witness Report of Leroy A. Prohofsky dated June 24, 1999. I disagree with Mr. Prohofsky's conclusions, which he summarizes in section III of that Report. Specifically, I do not believe that either the SB-2 document or the Acres Concept III document describes the invention of claim 22 of the '817 patent. I further believe that the Acres progressive table games installed at the Rio Suites casino were substantially different than claim 22. Further, I do not believe that the invention of claim 22 would have been obvious in light of the U.K. '054 application or any other references cited in Mr. Prohofsky's report.

A. Concept III and SB-2

I have reviewed the Concept III document and the SB-2 filing and have been questioned about these documents numerous times during my depositions. I believe that the Concept III document and the SB-2 filing would not teach a person of ordinary skill in the art to develop a system that has the elements of claim 22 of the '817 patent. As I testified in my depositions, these documents provide only general descriptions of various concepts and systems, without providing the details necessary to implement such concepts and systems. That is, the SB-2 and Concept III documents are statements of goals, not descriptions of how the goals are accomplished.

B. The U.K. '054 Application

My review of the U.K. '054 application shows that there are important differences between that system and the invention of claim 22 of the '817 patent. Significantly, the U.K. '054 application makes no mention of any progressive jackpot or slot-machine bonusing, which are the focus of the '817 patent, but instead describes an electronic "bingo" game. In addition, the U.K. '054 application does not describe any allocation of a portion of coins wagered to any kind of

pool. The U.K. '054 application never uses the word "preselection" or "selection" and contains no statement that any payouts are related to any command from any host computer. Also, the U.K. '054 application does not describe any activity that can be called "preselection," as that term is used in the '817 patent. I believe that one skilled in the art would not find any suggestion in the U.K. '054 application for the invention described and claimed in the '817 patent.

C. Acres Progressive Table Games

Mr. Prohofsky asserts that the invention of claim 22 of the '817 patent is found in Acres' progressive table games installed in the Rio Suites Casino in August of 1993. The Rio table games used conventional gaming device technology in 1993 and did not include the invention of claim 22 of the '817 patent. For example, the Rio table games did not include machine payout of the progressive amount. Instead, the dealer had to monitor the occurrence of the jackpot event, and then cause the jackpot to be awarded. The table games at the Rio were essentially a progressive meter, incremented by a player placing a coin in a coin slot. The Rio table games did not have the ability to preselect some of the games for operation through software. Any such changes would require revising the progressive controller's code.

D. Treasure Island System

CDS also asserts that the invention of claim 22 of the '817 patent was on sale to Treasure Island prior to October 12, 1993. In my prior declarations and depositions, I have discussed how the progressive system initially installed at Treasure Island on October 27, 1993, was not the invention of Acres' patents. For example, the preselection feature of the invention of claim 22 had not yet been developed when the Treasure Island casino first opened.

IV. MR. BENNETT'S REPORT

I have also reviewed the report dated July 6, 1999 signed by Mikohn's expert, Michael J.

Bennett. Mr. Bennett states that one or more of the following documents describe each element of claims 1, 4, 8 and 15 of the '459 patent: the U.K. '054 application, the SB-2 registration, and the Concept III document. Mr. Bennett further asserts that each of the elements of claims 16 and 18 of the '459 patent is shown in both the SB-2 registration and the Concept III document. The foregoing discussion of Mr. Prohofsky's report applies as well to Mr. Bennett's report because the '459 and '817 patents share a common specification and, for purposes of this analysis, protect similar inventions. I do not believe that any one or combination of the documents cited by Mr. Bennett would teach one skilled in the art of gaming device design to produce the inventions described and claimed in claims 1, 4, 8, 15, 16 and 18 of the '459 patent.

Mr. Bennett also asserts that each and every element of claims 1, 4, 8 and 15 of the '459 patent is shown in U.S. Patent No. 4,652,998 to Koza et al. ("the Koza patent"). I have reviewed the Koza patent, and I disagree with Mr. Bennett's assertion. For example, the Koza patent does not describe the preselection feature of claims 1, 4, 8 and 15, and there is also no description of the claimed reconfiguration command. Mr. Bennett asserts that a random sampling of players constitutes the claimed "preselecting" of claims 1, 4, 8 and 15. The random sampling process described in the Koza patent is completely different from the process of "preselecting," as that term is used in the claims of the '459 patent.

Mr. Bennett also asserts that U.S. Patent No. 5,242,163 to Fulton ("the Fulton patent") in combination with the U.K. '054 application renders obvious claims 16 and 18 of the '459 patent. Again, I disagree with Mr. Bennett's assertion. I have reviewed the Fulton patent, which I find describes a casino system that allows a person playing a game such as stud poker on a gaming device to elect to participate in a group-oriented game such as bingo without leaving the gaming device. My review shows that the system described in the Fulton patent is very different from the

inventions of '459 patent and the disclosure of the U.K. '054 application. For instance, the ability to participate in a bingo game, as described in the Fulton patent, is completely different than the term "level of play" as used in claim 16 of the '459 patent. Likewise, the Fulton patent's description of playing coins at a gaming device has no connection with the claimed criteria of the "rate at which coins are played" as specified in claim 18 of the '459 patent. In addition, I see no suggestion for combining any teachings of the U.K. '054 application with the Fulton patent.

As to the '817 patent, Mr. Bennett asserts that each of claims 1, 21, 24 and 29 is "unintelligible, ambiguous, anticipated and obvious." Mr. Bennett is wrong. A person skilled in the art who read the '817 patent specification would readily comprehend the meaning and import of the inventions of claims 1, 21, 24 and 29. In addition, none of the documents cited by Mr. Bennett, when considered alone or in any combination, describes the inventions of claims 1, 21, 24 and 29.

V. COMPENSATION

I am not receiving direct compensation for consulting, testimony, depositions or like for this litigation.

VI. PRIOR TESTIMONY

I was previously qualified to testify as an expert at trial and by deposition in <u>D&D Gaming</u>

Patents, Inc. v. Rio Suite Hotel & Casino, et al., No. CV-S-93-835-LDG (RLH), in the District of Nevada.

I will also be prepared to respond to any questions asked by Defendants regarding the above subjects. I also understand that discovery is not closed in this litigation, and I may need to supplement this report based upon discovery information received before trial of this matter.

Dated: 7/19/99

JOHN F. ACRES

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|-------|---|----------------------------|
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| 12 | | |
| 13 | UNITED STATES | DISTRICT COURT |
| 14 | DISTRICT | OF NEVADA |
| 15 | | |
| 16 | ACRES GAMING INC., | NO. CV-S-98-1462-HDM (LRL) |
| 17 | Plaintiff, | (Base File) |
| 18 | v. | |
| 19 | MIKOHN GAMING CORPORATION & | REBUTTAL STATEMENT BY |
| - | CASINO DATA SYSTEMS, | EXPERT WITNESS WILLIAM I |
| 20 | Defendants. | BERTRAM, Ph.D. |
| 21 | Determants. | |
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I. Introduction

I am William K. Bertram. I have been retained as an expert witness by Plaintiff Acres

Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted Expert Witness
Reports in this case dated June 29, 1999, and July 8, 1999, and have submitted an Expert Witness
Report, dated February 15, 1999, and a Rebuttal Statement dated March 15, 1999, in the other
patent infringement action pending between the parties, Acres Gaming Inc. v. Mikohn Gaming

Corp., et al., No. CV-S-97-1383-HDM (LRL) ("the 1383 case"). I incorporate all of my previous
expert reports and statements into this rebuttal statement. In my previous reports, I describe my
technical background and qualifications, and I discuss my opinion that Mikohn Gaming Corp.

("Mikohn") infringes claims 1, 4, 8, 15, 16, and 18 of U.S. Patent No. 5,820,459 ("the '459 patent")
and claims 1, 21, 24, and 29 of U.S. Patent No. 5,836,817 ("the '817 patent") and that Defendant
Casino Data Systems ("CDS") infringes claim 22 of the '817 patent.

In the 1383 case, I also previously submitted a declaration on May 20, 1998, demonstrating CDS's infringement of claim 10 of the U.S. Patent No. 5,752,882 ("the '882 patent"), a patent having the same disclosure as the '459 and '817 patents. I further submitted a second declaration in the 1383 case dated October 5, 1998, demonstrating that the invention described and claimed in the '882 patent is neither taught nor enabled by published U.K. patent application GB 2151054A ("the U.K. '054 application"). I submitted a third declaration in the 1383 case dated May 20, 1999, in response to several motions for summary judgment filed by CDS. I incorporate these declarations into this rebuttal statement. Finally, I have given testimony in my deposition of September 29, 1998, which addresses many of the positions I describe here.

II. Evaluation Summary of Mr. Prohofsky's Report

I have reviewed the Expert Witness Report of Leroy A. Prohofsky dated June 24, 1999. I disagree with Mr. Prohofsky's conclusions, which he summarizes in section III of that Report.

Specifically, I believe that claim 22 of the '817 patent is not anticipated by the Acres Concept III document. I also believe that claim 22 is not anticipated by the Form SB-2 registration statement submitted by Acres to the U.S. Securities and Exchange Commission. I further believe that claim 22 of the '817 patent is not anticipated by the Acres progressive table games installed at the Rio Suites casino. Further, claim 22 of the '817 patent is not rendered obvious by the U.K. '054 application or any other references cited in Mr. Prohofsky's report.

As stated in my Expert Witness Report of February 15, 1999, I have extensive experience in gaming product design. I believe that one skilled in the art of gaming device design would not, in 1993, have found it obvious to create the invention of claim 22 of the '817 patent given the then current state of the art.

I believe that the claim terms "command" and "predetermined event" used in claim 22 of the '817 patent are not vague. Indeed, the '817 patent specification provides a number of examples of such commands and predetermined events. These examples provide clarity to the claim terms, not ambiguity or vagueness as erroneously maintained by Mr. Prohofsky. Further, given the understanding of a person skilled in the art of gaming device design, the claim terms "command" and "predetermined event" are well understood and unambiguous. In addition, a person skilled in the art who read the '817 patent specification would understand that the "workstation" or "host computer" described in the specification has a "user-operated input device" as that term is used in claim 22.

As I have previously demonstrated in my Report of June 29, 1999, I believe that claim 22 of

the '817 patent is infringed by CDS.

III. Analysis

A. Concept III and SB-2

The majority of Mr. Prohofsky's report asserts that the technical disclosure in the '817 patent specification and figures is no more enabling of the invention of claim 22 than the brief descriptions included in such documents as the Concept III document and the SB-2 registration.

Mr. Prohofsky selects only portions of the '817 patent specification to compare to portions of the Concept III document or SB-2 registration. Mr. Prohofsky thus ignores the large difference between the thorough technical disclosure of the '817 patent specification and the brief descriptions included in the Concept III document and SB-2 registration. The '817 patent includes 14 hardware drawings, 22 software flow charts, and more than 30 columns of accompanying technical description. The enormous difference in technical disclosure of these documents shows Mr. Prohofsky's assertion to be erroneous.

I have reviewed the Concept III document and the SB-2 filing. I had previously examined these documents during my deposition of September 29, 1998. I believe that the Concept III document and the SB-2 filing would not teach a person of ordinary skill in the art to develop a system that has the elements of claim 22 of the '817 patent. As I testified in my deposition, these documents provide only an overview of what might be done, without providing any details at all. That is, the SB-2 and Concept III documents are statements of goals, not descriptions of how the goals are accomplished.

I note that on a number of occasions Mr. Prohofsky refers to "hav[ing] relied upon the entire teaching of both [the '817 specification and the Concept III document] in forming [his] opinion...." I must conclude that Mr. Prohofsky finds that the Concept III document teaches and

enables the invention of claim 22 only after his having absorbed the teaching and enabling disclosure of the '817 patent. Absent the extensive teaching of the '817 patent, one skilled in the art of gaming device design would not find the Concept III document or the SB-2 registration teaches or enables the invention of claim 22.

B. The U.K. '054 Application

I believe that there are numerous and significant differences between the U.K. '054 application and the invention described and claimed in claim 22 of the '817 patent. For example, the U.K. '054 application describes only an electronic "bingo" game with no mention of any progressive jackpot or slot-machine bonusing, which are the focus of the '817 patent. The U.K. '054 does not describe any allocation of a portion of coins wagered to any kind of pool. The U.K. '054 makes no mention of the word "preselection" or "selection." The U.K. '054 application contains no statement that any payouts are related to any command from any host computer. I have not found any description in the U.K. '054 application of an activity that can be called "preselection," as that term is used in the '817 patent, and as I have construed that term for purposes of demonstrating CDS's infringement of the '817 patent. Given my extensive experience in gaming device design, I believe that one skilled in the art would not find any suggestion in the U.K. '054 application for the invention described and claimed in the '817 patent.

I have also studied U.S. Patent No. 4,837,728 to Barrie et al. ("the Barrie patent"), which Mr. Prohofsky combines with the U.K. '054 application to assert the obviousness of claim 22 of the '817 patent. I have reviewed the Barrie patent, and I find it describes a progressive slot machine that would be considered conventional in 1993. The Barrie patent does not provide the above-described teaching that is missing from the U.K. '054 application. I believe that one skilled in the art of gaming device design would not, in 1993, have combined the features of the Barrie patent

with the U.K. '054 application to produce a system similar to that described and claimed in the '817 patent.

C. Acres Progressive Table Games

I understand that CDS asserts that the invention of claim 22 of the '817 patent is found in Acres' progressive table games installed in the Rio Suites Casino in August of 1993. I have reviewed the relevant portions of Mr. Vega's deposition and the exhibits pertaining to these table games, and have spoken with Acres' employees about how those games were constructed. It appears that these table games encompass conventional gaming device technology in 1993 and do not include the invention of claim 22 of the '817 patent. In particular, these progressive table games did not include machine payout of the progressive amount. Instead, the dealer was required to recognize the occurrence of the jackpot event, and the dealer would then cause the jackpot to be awarded. The table games at the Rio were essentially a progressive meter, incremented by a player placing a coin in a coin slot. I also understand that the Rio table games did not have the ability to preselect some of the games for operation through software. Any such changes would require revising the progressive controller's code. I understand that in operation, tables were not deactivated when not in use, but were covered with a tablecloth so players would not be confused.

D. Treasure Island System

I understand that CDS asserts that the invention of claim 22 of the '817 patent was on sale to Treasure Island prior to October 12, 1993. I am not particularly familiar with the system that was the subject of the Treasure Island purchase order. However, I do understand that the system specified included multiple controllers and a system architecture typical of then conventional progressive control systems. The networked gaming system described and claimed in the '817 patent differs significantly from that system specified in connection with the Treasure Island

purchase order. I do not believe that one skilled in the art of gaming device design would, upon learning of the original specifications of the Treasure Island installation, have understood that the invention of claim 22 of the '882 patent was contemplated in that purchase order.

IV. Evaluation of Mr. Bennett's Report

I have reviewed the Expert Report of Michael J. Bennett dated July 6, 1999, who has been retained by Mikohn. Mr. Bennett asserts that each of the elements of claims 1, 4, 8 and 15 of the '459 patent is shown in any one of the following documents: the U.K. '054 application, the SB-2 registration, and the Concept III document. Mr. Bennett further asserts that each of the elements of claims 16 and 18 of the '459 patent is shown in both the SB-2 registration and the Concept III document. My comments in connection with the discussion of the '817 patent contained in Mr. Prohofsky's report are equally applicable here because the '459 and '817 patents share a common specification and, for purposes of this analysis, protect similar inventions. I believe that any one or combination of the documents cited by Mr. Bennett would not teach one skilled in the art of gaming device design to produce the inventions described and claimed in claims 1, 4, 8, 15, 16 and 18 of the '459 patent.

Mr. Bennett also asserts that each and every element of claims 1, 4, 8 and 15 of the '459 patent is shown in U.S. Patent No. 4,652,998 to Koza et al. ("the Koza patent"). I have reviewed the Koza patent, and I disagree with Mr. Bennett's assertion. The Koza patent does not describe the preselection feature of claims 1, 4, 8 and 15, and there is also no description of the claimed reconfiguration command. Mr. Bennett asserts that a random sampling of players constitutes the claimed "preselecting" of claims 1, 4, 8 and 15. There is simply no connection between the random sampling process described in the Koza patent and the claim term "preselecting," as that term is used in the '459 patent, and as I have construed that term for

purposes of demonstrating Mikohn's infringement of that patent.

Mr. Bennett also asserts that U.S. Patent No. 5,242,163 to Fulton ("the Fulton patent") in combination with the U.K. '054 application renders obvious claims 16 and 18 of the '459 patent. I disagree with Mr. Bennett's assertion. I have reviewed the Fulton patent, which I find describes a casino system that allows a person playing a game such as stud poker on a gaming device to elect to participate in a group-oriented game such as bingo without leaving the gaming device. My review of the Fulton patent shows that the system described is very different from the inventions of '459 patent and the disclosure of the U.K. '054 application. In particular, I find no connection between the ability to participate in a bingo game described in the Fulton patent and the claim term "level of play" as used in claim 16 of the '459 patent. Similarly, the fact that the Fulton patent describes playing coins at a gaming device at some unspecified and unmonitored rate has nothing to do with claimed criteria of the "rate at which coins are played" as specified in claim 18 of the '459 patent. Moreover, I find no motivation or suggestion to combine any teachings of the U.K. '054 application with the Fulton patent.

As to the '817 patent, Mr. Bennett asserts that each of claims 1, 21, 24 and 29 is "unintelligible, ambiguous, anticipated and obvious." I disagree with Mr. Bennett's assertion. I believe that, after reading the specification of the '817 patent, one skilled in the art would have no difficulty understanding the scope of the claimed invention for each of claims 1, 21, 24 and 29. The numerous drawings and flowcharts contained in the specification together with the lengthy technical description provides ample information for one skilled in the art to ascertain the inventions of the '817 patent. Such a person would understand the asserted claims of the '817 patent in a manner consistent with the claim construction set forth in my Expert Report dated July 8, 1999. Further, the references discussed by Mr. Bennett do not describe the inventions of claims

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V. Conclusion

1, 21, 24 and 29, regardless of whether the references are considered singly or in any combination.

I believe that CDS and their expert Mr. Prohofsky are exercising hindsight reconstruction of the inventions described and claimed in the '817 patent. CDS and Mr. Prohofsky identify a number of documents that supposedly teach and enable the invention of claim 22 of the '817 patent. However, one of skill in the gaming device art in 1993 would not, upon absorbing the teaching of these documents, find the invention of the '817 patent disclosed or made obvious. Only if one has first studied and understood the extensive technical disclosure included in the '817 patent specification, could one then "find" the supposed teaching of this invention in the documents proffered by CDS and Mr. Prohofsky. Accordingly, I believe that CDS has failed to demonstrate that the invention of claim 22 of the '817 patent is anticipated or obvious. Also, as I have previously demonstrated in my Expert Witness Report of June 29, 1999, I believe that CDS infringes claim 22 of that patent.

I also believe that Mikohn and their expert Mr. Bennett have not identified any information that would teach one skilled in the gaming device art in 1993 to make the inventions described and claimed in the Acres '459 and '817 patents. Moreover, one of ordinary skill in the art would have no trouble understanding the claims of the '817 patent. As I have previously demonstrated in my Expert Witness Report of July 8, 1999, I believe that Mikohn infringes claims 1, 4, 8, 15, 16, and 18 of the '459 patent and claims 1, 21, 24, and 29 of the '817 patent.

By: Wall &

R. Franklin Burnett is being offered as an expert witness to testify on behalf of the Defendant, Casino Data Systems (CDS), in this action regarding U.S. Patent and Trademark Office (PTO) practice and procedure, the examination and prosecution of the applications leading to the patents-in-suit, and the validity and enforceability of the patents-in-suit, explaining as necessary the events which relate to the issues involved, particularly as such events relate to whether (1) United States Patent No. 5,752,882 ('882 application or '882 patent), and (2) United States Patent No. 5,836,817 ('817 application or '817 patent) are valid and enforceable or were obtained through inequitable conduct resulting from violations of Applicants' duty of candor and good faith and duty of disclosure.

I. EXPERT QUALIFICATIONS

- 1. I served in the Patent and Trademark Office from 1956 until my retirement in 1989. I served as Special Assistant to the Assistant Commissioner for Patents, as Supervisory Patent Examiner, and as Patent Examiner. I reside at 4902 Highway 25 South, Greenwood, South Carolina 29646.
- 2. I received a Bachelor of Science degree in Agricultural Engineering in 1956 from Clemson University, Clemson, South Carolina and a Juris Doctor with Honors in 1962 from The George Washington University, Washington, D.C.

- 3. During my service in the PTO, with the exception of a two-year military service period (50th Airborne Signal Battalion, Fort Bragg), I was involved with the examination of patent applications and the administration of patent examining programs on behalf of the PTO.
- 4. From 1972 to 1989, I was Special Assistant to the Assistant Commissioner for Patents in the PTO as part of the Senior Executive Service of the federal government. As Special Assistant, I was among those responsible for drafting regulations and procedures for examining applications in, and prosecuting applications before, the PTO, including the regulations and procedures regarding the duty of candor and duty of disclosure in Title 37 of the Code of Federal Regulations (CFR) and the Manual of Patent Examining Procedure (MPEP). During much of the period I was Special Assistant I was responsible for directing and supervising a Special Program Examination Unit composed of 10-15 examiners (lawyers) who were responsible for the examination of patent applications involving issues of "fraud" and inequitable conduct which were referred to that Unit from all of the Examining Groups of the PTO. This Unit examined all of the applications in which issues of "fraud" and inequitable conduct were considered by the PTO except those in which the issues were considered during an interference proceeding.
- 5. During the 1970's while I was Special Assistant, I also served as the Director of two different Patent Examining Groups for separate periods of time.

- 6. From 1967 to 1972, I was a Supervisory Patent Examiner in Examining Group 160 (Chemical Engineering) where I was responsible for the supervision and training of about 20 patent examiners.
- 7. Prior to 1967, I was a Patent Examiner examining patent applications in various mechanical engineering fields of technology.
- 8. Following my retirement from federal service in 1989, I served for a brief period of time as a consultant to the government of Indonesia on establishing a patent office and patent system. Since then I have been serving as a patent consultant in private practice.
- 9. During my service in the PTO, I was called upon to testify on behalf of the PTO, at depositions and in Federal District Court, in the field of PTO practice and procedure.
- 10. Since my retirement from federal service I have testified as an expert witness in Federal District Court in the field of patents and have consulted in patent matters.

 I have given my affidavit and/or testified in several contested patent infringement matters in Federal Courts, as an expert in PTO procedure.
- 11. Attached hereto is an accurate resume of my experience and qualifications.

II. STATEMENT OF OPINIONS

- 1. The opinions below are based on the studies conducted and the information available to me to date. As additional opinions are formulated based on evidence developed during discovery and otherwise, these opinions may be supplemented as appropriate.
- 2. In testifying as to the opinions set forth herein,

 I expect to explain, to the extent necessary and appropriate,
 the events which occurred during the prosecution and examination
 of the applications leading to the '882 patent and the '817
 patent, including the events which occurred during the
 prosecution and examination of Application Serial No. 08/322,172,
 filed October 12, 1994, now U.S. Patent No. 5,655,961 ('961
 application or '961 patent), of which the '882 and '817 applications
 claimed to be divisional applications filed under 37 CFR §1.60.
 I expect to explain that, under U.S. patent practice, the '882
 and '817 applications and patents are therefore entitled to no
 earlier filing date in the United States than October 12, 1994.
 - 3. I expect to explain, to the extent necessary and appropriate, the requirements and expectations of the PTO during the relevant period as to the duty of candor and good faith, and the duty of disclosure, referring as necessary and appropriate to the regulations, PTO publications, and relevant judicial decisions. In so testifying, I expect to explain that, since November, 1992, §2001.04 of the MPEP, Rev. 14, 5th Edition, has described "information material to patentability" as follows:

"The term 'information' as used in 37 CFR 1.56 means all of the kinds of information required to be disclosed and includes any information which is 'material to patentability.'

Materiality is defined in 37 CFR 1.56(b) and discussed herein at MPEP §2001.05. In addition to prior art such as patents and publications, 37 CFR 1.56 includes, for example, information on possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, inventorship conflicts, and the like.

"The term 'information' is intended to be all encompassing ... 37 CFR 1.56(a) also states: 'The Office encourages applicants to carefully examine: *** (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.' ***"

See, also §2001.04, MPEP, 7th Edition, July, 1998.

4. I expect to relate the requirements and expectations of the PTO during the relevant period as to the duty of candor and good faith, and the duty of disclosure, to the events and circumstances involved in the prosecution and examination of the applications leading to the patents-insuit.

THE APPLICATIONS LEADING TO THE '882 AND '817 PATENTS

5. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that information material to patentability was not disclosed to the Examiner, and that there were failures to comply with the duty of candor and good faith, by the Applicants and/or their Attorney (hereinafter collectively Applicants) during the prosecution of the applications

leading to the '882 and '817 patents. Based on the documents and testimony reviewed to date, I expect to testify that the level of materiality of the information material to patentability which was not disclosed, and the failures to comply with the duty of candor and good faith, were such that "but for" the failures to disclose such information and to comply with the duty of candor and good faith, the '882 and '817 patents would not have issued with the Claims they now contain, or at least would not have issued without the record being clarified as to why they should so issue. In so testifying, I expect to rely upon the opinions and testimony of CDS' technical expert(s), to the extent necessary and appropriate, as to the level of materiality of the information not disclosed and the failures in the duty of candor and good faith.

THE "GAMING INNOVATIONS CONCEPT III" "BOUND DOCUMENT" OR BROCHURE WAS A PRINTED PUBLICATION UNDER-35 U.S.C. §102(b) AND WAS NOT DISCLOSED TO THE PTO EXAMINER

6. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the Concept III bound document or brochure (McCollom Exhibit 172; 2043561-99) was a printed publication under 35 U.S.C. §102(b), was known to and in the prosecution file of Applicants' Attorney McCollom prior to the filing of the first of the applications leading to the '882 and '817 patents ('961 application), and was not disclosed to the Examiner.

7. I expect to point out that Attorney McCollom has testified at pages 298-302 of his deposition of December 9, 1998, that

"I recall having a bound document in my 4164-2 file [p. 299; "prosecution file for the first Acres Gaming patent application"] that looked like it might have been ["marketing material"]."

At page 348 of his deposition Attorney McCollom testified he was "sure" he received Exhibit 172 before the '961 application was filed and at pages 349-50 of his deposition Attorney McCollom testified that Exhibit 172 was what he was referring to as "spiral bound with a plastic cover" that he received prior to filing the '961 application and which he put in his application file.

8. I expect to point out that Jose Vega, employed by Acres from October, 1991 (Vega deposition, 1/25/99, p. 23), to November, 1995 (Vega deposition, p. 8), testified, at pages 115-6 of his deposition, as follows:

⁽p. 115)

[&]quot;Q. Did you ever see a product brochure that was spiral bound on the left-hand side with a clear plastic cover?

[&]quot;A. Oh, that has definitions of Double Jackpot Time and things of that nature?

[&]quot;Q. Correct.

[&]quot;A. Yes.

[&]quot;Q. ... Were those kept in your offices in Corvallis?

[&]quot;A. I believe so, yes.

[&]quot;Q. Where were they kept?

- "A. Up by the mail room, I believe, where we got our mail.
- "Q. All right. Was there a stack of them in the mail room?
- "A. I believe so.
- "Q. Was that so you could mail them out quickly?
- "A. I would guess, yeah.
- "Q. All right. Do you know if Mr. Acres did any marketing mailings of his glossy binder?
- "A. I know that they would be sent if somebody -- if John had talked to somebody and they had requested information, he would go ahead and send that to them, or he would have one of us do that.
- "Q. Did you ever do that?
- "A. Yes.
- "Q. Who can you recall sending the glossy spiral-bound binder to?
- "A. *** I believe I sent one to New Jersey Division of Gaming Control."
- 9. I expect to point out that Acres Exhibit 262 (3002436-9), dated 5/25/93, detailed two instances in which "the write up on the Concept III System" was "faxed" to individuals by "Wendell" and that was reported to Acres.
- 10. I expect to point out that Wiebenson Exhibit 3
 (2002918-35) includes a version of the Concept III brochure
 and a cover letter signed by Acres setting forth the benefits
 to the Winnebago Wisconsin Nation. The drawing in Exhibit 3
 (2002928) has additions to it over the drawing in Exhibit 172
 (2043570). At pages 202-3 of his deposition of June 29, 1998,
 Acres testified he sent Exhibit 3 to the casino manager for

the Winnebago Indian Tribal Council in the first half of 1993.

- 11. I expect to point out that Acres Exhibit 7 (2002988-97) (Acres deposition, 6/29/98, pp. 257-71) included a version of the Concept III brochure (2002994-7) and this was sent to Binion of Binion's Horseshoe Casino in January, 1993.
- 12. I expect to point out that documents obtained by CDS (CDS 0008206-37) establish that a version of the Concept III brochure was sent to, and received by, Joe Rammos of Casino Royale on February 16, 1993 (CDS 0008231-7).
- 13. I expect to point out that Acres Exhibit 257, a letter and "Proposal for Ramada Express Casino January 6, 1993" (3002469-81), included a version of the Concept III brochure (3002477-81).
- 14. I expect to point out that Acres testified, at page 706 of his deposition of March 17, 1999, that
 - "I would never give someone an outline of Concept III if it weren't chasing after some business. Whether that was down to specific pricing, giving general pricing information, or no pricing at all, it is not a document that we mailed out."
- and testimony reviewed to date, the evidence is clear and convincing that the Concept III brochure (Exhibit 172; Exhibit 3; and other versions) qualified as printed publications under 35 U.S.C. §102(b) since they were sent out to members of the industry in "chasing after some business" and thus were generally available to those in the industry who were potential customers. The testimony and documents reviewed to date fail

to support a conclusion that the Concept III brochure, e.g., Exhibits 172 and 3, was distributed in confidence and no markings appear thereon to so indicate.

16. I expect to testify that even if the Concept III brochure is ultimately found not to qualify as prior art under 35 U.S.C. §102(b), the evidence is clear and convincing that the Concept III brochure was information which established "a prima facie case" of publication under 35 U.S.C. §102(b) and therefore was required to be disclosed to the PTO Examiner by 37 CFR §1.56(b). I expect to testify that, based on the present record, a PTO Examiner would have relied upon the Concept III brochure, e.g., Exhibits 172 or 3, as a printed publication and placed the burden upon Applicants to refute the Examiner's position.

THE CONCEPT III BROCHURE WAS INFORMATION MATERIAL TO PATENTABILITY UNDER 37 CFR §1.56

- 17. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the Concept III brochure, e.g., Exhibits 172 or 3, was information material to patentability and required to be disclosed to the PTO Examiner.
- 18. I expect to point out that Attorney McCollom testified, at page 298 of his deposition of December 9, 1998, about having a "bound document in my 4164-2 file that looked like it might have been" "marketing material" and, at page 350 of his deposition, testified that the drawing from Exhibit 172

(2043570)

"wound up as figure one of the '961 patent."

19. I expect to testify that a comparison of Claim 10 of the '882 patent with the content of McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability" of Claim 10 under 35 U.S.C. §102 and/or §103 as set forth below:

Claim 10 of the '882 Patent McCollom Exhibit 172

A method of operating gaming devices interconnected by a host computer having a user-operated input device

comprising:

associating each gaming device with a unique address code;

preselecting less than
all of the gaming
devices interconnected
by the host computer
responsive to a usereffected action at the
input device which
identifies the preselected
gaming devices with the
respective associated
address codes;

20043565- "Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personal computer. You simply type in which machines are connected to which links and describe the starting jackpot amounts, increment rates, limits if any, etc."

2043571- "Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system."

2043564- "Concept III lets you run promotions on any properly equipped machines in your casino while simultaneously gathering player tracking and accounting data from all machines. You select which machines are used in which promotions, connect your signage and information displays (if any), and begin operation. Concept III allows any number of different promotions to operate simultaneously."

2043565- "you can set up the system to only pay Double Jackpots to customers playing maximum coins, or pay double only on awards above a specified amount."

Claim 10 of the '882 Patent McCollom Exhibit 172 (Continued)

(Continued)

"You simply type in which machines are connected to which links"

using the network to track activity of the preselected gaming device; 2043564- See above.

2043566- "Since Concept III monitors slot activities, it collects all information required for proper slot accounting reports."

2043567- "Concept III also records how long the customer spends at each machine and records the number of coins won, counts games played and hand paid jackpots won."

issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and

2043563-4- "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to tell the machine to pay money from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even command the machine to pay all jackpots at two or three times the normal rate and communicate with customers through displays mounted on the machine."

2043564- "AutoScan provides full accounting of bonus payments and requires no human intervention for bonus award payments."

2043565- See above.

paying at said one gaming device in accordance with the command."

2043564- "Concept III automates double jackpot payments by causing the machine hopper to pay bonus amounts."

In testifying that McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability" of Claim 10 I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to the effect of Exhibit 172 on the Claims of the '882 patent.

20. I expect to testify that a comparison of Claim 22 of the '817 patent with the content of McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability" of Claim 22 under 35 U.S.C. §102 and/or §103 as set forth below:

Claim 22 of the '817 Patent McCollom Exhibit 172

A method of operating gaming devices interconnected by a computer network to a host computer having a user-operated input device

2043565- See quotation above in ¶ 19 re Claim 10 of '882 Patent

comprising:

preselecting less than all of the gaming devices interconnected by the computer network responsive to a user-effected action at the input device;

2043564- See quotation above in ¶ 19 in re "preselecting" recitation in Claim 10 of '882 Patent

using the network to track the amount of money played on the preselected gaming devices; 2043564; 2043566; 2043567- See quotations above in ¶ 19 re tracking the activity in Claim 10 of '882 Patent

allocating a predetermined percentage of the money played to a bonus pool; and

2043565- "You simply type in which machines are connected to which links and describe the starting jackpot amounts, increment rates, limits if any, etc."

issuing a command over the network to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event." 2043563; 2043564; 2043565- See quotations above in ¶ 19 in re issuing a command and paying in Claim 10 of the '882 Patent

In testifying that McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability of Claim 22 I expect to

rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to the effect of Exhibit 172 on the Claims of the '817 patent.

21. I expect to testify that, based on the documents and testimony reviewed to date, McCollom Exhibit 172 compels a conclusion that "a prima facie case of unpatentability" exists as to Claims of the '882 patent and the '817 patent and those Claims would have been rejected in the '882 and '817 applications by the PTO Examiner if Exhibit 172 had been disclosed to the Examiner, and thereafter Applicants would have had an opportunity to submit any evidence they had in an attempt to establish the patentability of the Claims. Thus, "but for" the failure to disclose Exhibit 172 the Claims would not have been allowed, or at least would not have been allowed without the record being clarified as to why they should have been allowed.

THE "FORM SB-2 REGISTRATION STATEMENT"

(ACRES EXHIBIT 6) FILED WITH THE SECURITIES

AND EXCHANGE COMMISSION (SEC) ON SEPTEMBER 20,

1993, WAS A PRINTED PUBLICATION UNDER

35 U.S.C §102(b) AND WAS NOT DISCLOSED TO

THE PTO EXAMINER

22. I expect to testify that, based on the documents and testimony reviewed to date, the FORM SB-2 constitutes prior art under 35 U.S.C. §102(b) since it was available to the public no later than October 1, 1993. See the deposition of Mary Ann Wismer taken February 25, 1999, pages 52-62,

- 69-72, 112-114, 116-117, 131-134, and 144-145.
- 23. I expect to point out that McCollom Exhibit 169
 (GPM 0001652-91), the Preliminary Prospectus Dated October 13,
 1993, at page 2 (GPM 0001653), announced the availability
 of copies of the FORM SB-2 and the various locations from
 which they could be obtained.
- 24. I expect to point out that Acres signed FORM SB-2 on September 17, 1993, but testified, at pages 200-2 of his deposition that even though he knew that he had a duty to disclose material prior art to the PTO Examiner he did not disclose the FORM SB-2 to his patent attorney because
 - "I didn't see any relevance."
- 25. I expect to testify that Acres had been previously advised by Attorney McCollom in an April 30, 1993, "Patent validity study and opinion Our Docket No. 464-1" (McCollom Exhibit 136; GPM 0003105-28) regarding Acres' "proposed progressive jackpot table game for live blackjack tables" that prior art included "public uses and sales" and that the disclosure of "relevant prior art of which the applicant was aware"
 - "is a duty imposed upon applicants for U.S. patents by federal regulations." (GPM 0003107).
- 26. I expect to point out that Attorney McCollom, at pages 284-94 of his deposition of December 9, 1998, testified that he assisted the underwriters in preparing or reviewing portions of the prospectus (pp. 293-4), received a copy of the prospectus at home (p. 286), has seen a copy with red

ink which comports "in terms of appearance" with Exhibit 169 (p. 286), and purchased shares of Acres Gaming "at the initial public offering price" (pp. 292-3).

- 27. I expect to testify that, based on the documents and testimony reviewed to date, the FORM SB-2 was a printed publication under 35 U.S.C. §102(b) known at least to Acres and that Attorney McCollom had been involved in preparing or reviewing portions of the prospectus and had purchased shares of Acres Gaming "at the initial public offering price."
- 28. I expect to testify that even if the FORM SB-2 is ultimately found not to qualify as prior art under 35 U.S.C. §102(b), the evidence is clear and convincing that the FORM SB-2 was information which established "a prima facie case" of a publication under 35 U.S.C. §102(b) and therefore was required to be disclosed to the PTO Examiner by 37 CFR §1.56(b). I expect to testify that, based on the present record, a PTO Examiner would have relied upon the FORM SB-2 as a printed publication and placed the burden upon Applicants to refute the Examiner's position.

THE FORM SB-2 WAS INFORMATION MATERIAL TO PATENTABILITY UNDER 37 CFR §1.56

29. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the FORM SB-2 was information material to patentability and required to be disclosed to the PTO Examiner.

- 30. I expect to point out that FORM SB-2, at page 20, and the Preliminary Prospectus Dated October 13, 1993
 (Exhibit 169), at page 18, both contain a list of Concept III installations which the Company "has installed or has obtained contracts for". Included in the list in both Exhibits 6 (FORM SB-2) and 169 are an installation in August, 1993, of progressive jackpots for table games at the Rio Suites Hotel & Casino and an installation in October, 1993, of progressive jackpots for slot machines at Treasure Island Casino.
- 31. I expect to point out that Attorney McCollom testified, at pages 236-7 of his deposition of December 9, 1998, that he was aware before the filing of the application for the '961 patent that Acres "had been in a marketing mode", but he did not
 - "request any marketing information that was distributed by Acres Gaming prior to filing the patent application." (page 361, 12/9/98 deposition).
- 32. I expect to testify that, based on the documents and testimony reviewed to date, the list of installations in the FORM SB-2, and particularly the Rio Suites Hotel & Casino progressive jackpots for table games and the Treasure Island Casino progressive jackpots for slot machines, when considered with the descriptions of Concept III products in the document at, for example, pages 15-24, compels a conclusion that "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents exists under 35 U.S.C. §102(b) and/or §103 based on the FORM SB-2 disclosures. I expect to testify

that, based on the present record, a PTO Examiner would have rejected the '882 application Claims and the '817 application Claims if FORM SB-2 had been disclosed to the Examiner, and thereafter Applicants would have had an opportunity to submit any evidence they had in an attempt to establish the patentability of the Claims. Thus, "but for" the failure to disclose the FORM SB-2 the Claims would not have been allowed, or at least would not have been allowed without the record being clarified as to why they should have been allowed.

33. In testifying that FORM SB-2 establishes "a prima facie case of unpatentability" of Claims of the '882 and '817 patents I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to the effect of FORM SB-2 on the Claims of the '882 and '817 patents.

MORE THAN ONE YEAR PRIOR TO THE OCTOBER 12,

1994, FILING DATE OF THE '961 APPLICATION

WERE NOT DISCLOSED TO THE PTO EXAMINER

- A. THE CASINO ROYALE ACTIVITIES BETWEEN FEBRUARY 15, 1993,
 AND OCTOBER 5, 1993 (CDS 0008206-37; THE CASINO ROYALE DOCUMENTS)
- 34. I expect to testify that the Casino Royale documents demonstrate "on sale" activity beginning with a February 15, 1993, letter from Acres to Rammos of Casino Royale which included a "Concept III Overview" (CDS 0008234-7). Further documents include a proposal (CDS 0008230), dated April 20, 1993, on

"Gaming Innovations" letterhead and addressed to Rammos, which offered Casino Royale "the bonus system" for a set price. A further letter, signed by Acres and transmitting a proposal, was dated July 30, 1993 (CDS 0008206-9).

- B. THE TREASURE ISLAND ACTIVITIES REFERENCED IN FORM SB-2

 DATED SEPTEMBER 17, 1993 (ACRES EXHIBIT 6, p. 20) AND IN

 THE PRELIMINARY PROSPECTUS DATED OCTOBER 13, 1993 (McCOLLOM EXHIBIT 169, p. 18)
- 35. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at Treasure Island Casino prior to October 12, 1993, the "critical date" for the '961 application, through a contract for "Progressive jackpots for slot machines" with the "Date of Installation" listed as October, 1993. Exhibit 6, at page 15, and Exhibit 169, at page 14, represent that

"[t]he Treasure Island Casino in Las Vegas, scheduled to open in late October 1993, has ordered the progressive jackpot system for slot machines for casino-wide use."

Exhibit 6, at page 18, and Exhibit 169, at page 16, describe Acres' Concept III "Progressive Jackpots for Slot Machines" as follows:

"A progressive jackpot system links a number of slot machines to generate a collective jackpot. As coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot. Other progressive jackpot systems In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer. This method of programming enables the casino manager to determine which machines are to be linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot. The flexibility

provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions which may be created from time to time."

C. THE WISCONSIN WINNEBAGO NATION ACTIVITIES

36. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at the Wisconsin Winnebago Nation through contracts with dates of installation in August and November, 1993. Wiebenson Exhibit 3 (2002918-35) demonstrates that the "on sale" activity included the Concept III brochure with all its features.

D. THE BINION'S HORSESHOE CASINO ACTIVITIES

37. I expect to testify that Acres Exhibit 7 (2002988-97) demonstrates "on sale" activity by including a "Concept III System Proposal for Binion's Horseshoe Casino January 5, 1993"

"to fully implement player tracking and slot accounting"

and representing that

"[t]he system is capable of accepting any combination of Gaming Innovations' Concept III promotion systems, including Double Jackpot Time, Bonus Jackpots, Cashless play and progressives." (2002991).

The "Concept III Overview" brochure was included and referenced in the letter from Acres to Binion (2002989).

E. THE RAMADA EXPRESS CASINO ACTIVITIES

38. I expect to testify that Acres Exhibit 257 (3002469-81) demonstrates "on sale" activity by a "proposal for Ramada Express Casino January 6, 1993". The letter from Acres (3002469) described the proposal as

"a four part proposal for enhancing your
 player tracking and data collection system"
and also represented that

"enclosed is an outline of what we call Concept III. These are promotion modules we are developing to run on our data collection/Player Tracking equipment."

The "Concept III Overview" brochure (3002477-80) was included.

F. THE RIO SUITES HOTEL & CASINO ACTIVITIES

- 39. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at Rio Suites Hotel & Casino by installation in August, 1993, of "Progressive jackpots for table games".
- 40. I expect to point out that in a letter dated September 15, 1993, sent by facsimile on September 16, 1993, to Kim Lighthart of Nevada Gaming Control from Acres (0048-51), Acres outlined "our progressive jackpot system architecture" for slot machines and represented (0050) that
 - "[t]hese concepts were originally developed by us for use on the Caribbean Stud table games and later on our own progressive 21 tables. These systems have met the review of your department. Of course, you'll want to review the slot versions as well."
- 41. I expect to point out that Attorney McCollom, in his "Patent validity study and opinion" (McCollom Exhibit 136; GPM 0003105-28) relied on "progressive jackpot systems which are connected to a bank of slot machines" (GPM 0003106) as prior art relevant to patents relating to progressive jackpot systems for casino table games.
- 42. I expect to point out that McCollom testified, at pages 153-5 of his deposition of September 1, 1998, that it

was appropriate to use

"prior art that involved progressive jackpot systems for slot machines to support ... [his] opinion of invalidity of a jackpot system for a gaming table."

43. I expect to point out that Exhibit 6, at page 18, and Exhibit 169, at page 17, represented that Acres recently began marketing gaming tables incorporating the progressive jackpot system and that

"[t]he first installation resulting from direct marketing of the Concept III progressive jackpot system for table games is a four-table 'Progressive 21' installation in the Rio Suites Hotel & Casino in Las Vegas, where final approval tests for the Nevada Gaming Commission were recently completed and a 30-day field trial is currently in progress."

THE "ON-SALE" ACTIVITIES WERE SUCCESSFUL MORE THAN ONE YEAR PRIOR TO THE OCTOBER 12, 1994, FILING DATE OF THE '961 APPLICATION

- 44. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had sold and installed a progressive jackpot system for table games at the Rio Suites Hotel & Casino in Las Vegas in August, 1993, and that system qualified as prior art under 35 U.S.C. §102(b).
- 45. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had sold a progressive jackpot system for slot machines more than one year prior to the filing date

of the '961 application to the Treasure Island Casino in
Las Vegas which was scheduled to open in late October, 1993,
and that sale "prima facie" qualified as prior art under
35 U.S.C. §102(b).

- 46. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had offered a "bonus system" for slot machines more than one year prior to the filing date of the '961 application to the Casino Royale in Las Vegas and those offers (April 20, 1993, CDS 0008230; July 30, 1993, CDS 0008206-9) "prima facie" qualified as prior art under 35 U.S.C. §102(b).
- 47. I expect to testify that, based on the documents and testimony reviewed to date, the fact that Acres included the Concept III brochure describing the promotion systems, including "Double Jackpot Time", "Bonus Jackpots", "Progressive Jackpots", and "Cashless Play", with proposals in situations in which the prospective buyer had not yet agreed to buy the promotion systems, supports the conclusion that the systems in the Concept III brochure were in fact on sale and that, as Attorney McCollom testified, at pages 236-7 of his deposition of December 9, 1998, Acres "had been in a marketing mode" before the filing date of the '961 application.
- 48. I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to whether the "prima facie" qualification of the sales and/or offers as prior art under 35 U.S.C. §102(b) can be successfully rebutted.

THE "ON-SALE" ACTIVITIES WERE INFORMATION MATERIAL TO PATENTABILITY UNDER 37 CFR §1.56

- 49. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the "on-sale" activities were information material to patentability and required to be disclosed to the PTO Examiner.
- 50. I expect to testify that the Rio Suites August, 1993, installation of progressive jackpots for table games was information material to patentability which established "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of Acres' representation to the Nevada Gaming Control that the "progressive jackpot system architecture" for slot machines was "the slot versions" of the table game systems which "have met the review of your department."

 See ¶ 40 above and Acres' letter of September 15, 1993, to Kim Lighthart of Nevada Gaming Control.
- 51. I expect to testify that Attorney McCollom's
 "Patent validity study and opinion" (McCollom Exhibit 136)
 and his testimony quoted above in ¶ 42 also supports a conclusion
 that the Rio Suites August, 1993, installation of table games
 was information material to the patentability of the '882 and
 '817 applications.
- 52. I expect to testify that the Treasure Island sale referenced in Exhibits 6 and 169 was information material to patentability which established "a prima facie case of

unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of the description of the Concept III products in Exhibits 6 and 169 and the Concept III brochure. See, for example, the description under "Progressive Jackpots for Slot Machines" on page 18 of Exhibit 6.

- 53. I expect to testify that the Casino Royale "bonus system" offer was information material to patentability which established "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of the descriptions in Exhibits 6 and 169 and the Concept III brochure.
- 54. I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to whether the "prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 can be successfully rebutted.

THE LEVEL OF MATERIALITY

and testimony reviewed to date, the level of materiality of the information material to patentability which was not disclosed, and the importance of the failures in the duty of candor and good faith, were such that "but for" the failures in the duty of candor and good faith and the duty of disclosure the Claims of the '882 and '817 applications would not have issued when they did issue, or at least would not have issued without the prosecution histories of the patent applications

being clarified as to why they should issue.

56. I expect to testify that the present circumstances are not some isolated instance of a single failure to disclose one item of information in one application. Instead, the failures to disclose information material to patentability and the failures to comply with the duty of candor and good faith, began with the first of the Acres et al. applications, the '961 application, when Acres' spiral bound product brochure, Exhibit 172, was used to prepare the '961 application and then not disclosed to the PTO Examiner. It is undisputed that the drawing from Exhibit 172 (2043570) "wound up as figure one of the '961 patent", and also as figure 1 of the '882 and '817 patents. See ¶ 18 above. In addition, language and descriptions from portions of Exhibit 172 closely parallel that of the '882 and '817 applications and patents. Compare, for example, column 19, line 66- column 20, line 2, of the '882 patent (column 20, lines 18-21, '817 patent) with the language in Exhibit 172 at 2043564 which reads:

"Concept III lets you run promotions on any properly equipped machines in your casino while simultaneously gathering player tracking and accounting data from all machines."

Compare, also, the representation at 2043567 of Exhibit 172 under the heading "Player Tracking" that

"[o]ur software also lets you schedule busses

and other groups and measure their profitability"
with
column 29, lines 23-5 of the '882 patent ('817 patent, column
29, lines 39-41) which reads:

"The player tracking according to the invention allows the casino to schedule buses and other groups and measure their profitability."

I expect to testify that it is clear from a comparison of Exhibit 172 with the '882 and '817 patents that Exhibit 172 was used in preparing the '961 application, from which the '882 and '817 applications were filed as divisional applications under 37 CFR §1.60.

- 57. I expect to testify that the comparisons made above in ¶s 19 and 20 establish that Exhibit 172 and the '882 and '817 patent Claims are "prima facie" describing the same methods of operating. Thus, the materiality of Exhibit 172 to the patentability of the '882 and '817 applications was extremely high and it was not disclosed in the '961 application, the '882 application, or the '817 application.
- 58. I expect to testify that the evidence is clear and convincing that Acres Exhibit 6, the FORM SB-2, was a printed publication which was of an extremely high level of materiality and which was not disclosed to the PTO Examiner in any of the three applications ('961 or '882 or '817).
- 59. I expect to testify that if the FORM SB-2 had been disclosed to the PTO Examiner in the applications the Examiner would have been made aware of the list of installations Acres had contracts for, or had installed, or was in the process of installing. The details and descriptions in the FORM SB-2 would also have informed the Examiner of the types of installations involved. This highly material information was not disclosed in each of the '961 application, the '882 application, and the

- '817 application, and therefore was not considered by the PTO Examiner in granting any of the three patents.
- 60. I expect to testify that the information on Acres "on sale" activities was of an extremely high level of materiality and was not disclosed to the PTO Examiner in any of the '961 application, the '882 application, or the '817 application.
- 61. I expect to testify that the offer of a bonus system for a set price to Casino Royale prior to the critical date of October 12, 1993 was clearly information highly material to patentability which was not disclosed to the PTO Examiner in any of the three applications.
- 62. I expect to testify that the Treasure Island Casino contract entered into by Acres prior to the critical date of October 12, 1993, for "Progressive jackpots for slot machines" was clearly information highly material to patentability which was not disclosed to the PTO Examiner in any of the three applications.
- 63. I expect to testify that Acres' characterization

 (¶ 40 above) of the progressive jackpot system for slot

 machines as the "slot versions" of the progressive jackpot

 system for table games establishes the high level of materiality

 of the installation completed at Rio Suites Hotel & Casino in

 August, 1993. No disclosure of the completed system was made to

 the PTO Examiner in any of the three applications.

THE DOCUMENTS AND TESTIMONY REVIEWED TO DATE PROVIDE NO REASONABLE EXPLANATION FOR THE FAILURES SO AS TO ESTABLISH OR SUGGEST THAT THEY OCCURRED IN GOOD FAITH

- 64. I expect to point out that both Acres and Attorney McCollom were aware of the necessity to disclose prior art systems to the PTO Examiner as demonstrated by Attorney McCollom's "Patent validity study and opinion Our Docket No. 4164-1" (McCollom Exhibit 136; GPM 0003105-28), addressed to Acres which stated, at GPM 0003108, that
 - "[i]t is our opinion that the examiner would not have allowed the claims in the form set forth in the issued patent had he been aware of the prior art progressive blackjack and slot machine systems which you described to us."

One page earlier (GPM 0003107), the opinion referenced "a duty imposed upon applicants for U.S. patents by federal regulations" "to disclose relevant prior art of which the applicant was aware."

- 65. I expect to testify that even though both Acres and Attorney McCollom were aware of the duty of disclosure requirements, the "References Cited" on the front or first page of the '961 patent, the '882 patent, and the '817 patent include only "U.S. Patent Documents" and "Foreign Patent Documents".
- 66. I expect to point out that Attorney McCollom testified, at pages 192-3 of his deposition of December 9, 1998, that he informed "the client" ["Acres Gaming and the inventors"] of "their obligations to disclose material prior art" to the PTO

and believed "they understood their obligation" prior to filing the patent application.

- 67. I expect to point out that Acres testified, at his deposition of March 16, 1999, that when he signed the papers relating to the patent application he understood that he was "under obligation to provide the patent office with material prior art".
- 68. I expect to point out that Attorney McCollom has testified, at pages 236-8 of his deposition of December 9, 1998, that, prior to the filing of the '961 application, he was aware that Acres had been in a "marketing mode" and that prior to September 4, 1997, "I recall mention of the Winnebago effort" and "I knew about the Treasure Island installation". Thus, Attorney McCollom knew about both "the Winnebago effort" and "the Treasure Island installation" prior to the May 19, 1998, issue date of the '882 patent and the November 17, 1998, issue date of the '817 patent.
- 69. I expect to point out that, at pages 361-3 of his deposition of December 9, 1998, Attorney McCollom testified as follows:
 - "Q. *** Do you have any basis for believing that Exhibit 172 was not used in marketing by Gaming Innovations?
 - "A. Yes.
 - "Q. What is the basis for believing that Exhibit 172 was not used in marketing by Gaming Innovations?
 - "A. The only basis I have is that my normal practice with a client, when receiving a document like this, would be to discuss the

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nature of the document and ask when it was created and if it was distributed, and if so, to whom.

- "Q. All right. Did you ask if there were any other versions of it, Exhibit 172?
- "A. I don't recall.
- "Q. Did you make any notes of any conversations regarding Exhibit 172?
- "A. I don't think I did.
- "Q. Did you request any marketing information that was distributed by Acres Gaming prior to filing the patent application?
- "A. No, I didn't. I requested -- prior to filing the application, I did request information that we could use to write the application.
- "Q. Can you recall ever asking anyone what Exhibit 172 was used for?
- "A. I don't recall. Bur again, my normal practice would be to make that inquiry.
- "Q. *** The title of Exhibit 172 is Gaming Innovations. Do you see that?
- "A. Yes.
- "Q. And you were involved in the initial public offering for Acres Gaming, correct?
- "A. That's correct.

(p. 363)

- "Q. So just based on the name alone, you knew, did you not, that Exhibit 172 dated from the pre IPO era; isn't that fair?
- "A. I think it's fair to say that it's likely that it did."
- 70. I expect to point out that, at pages 365-6 of his

deposition of December 9, 1998, Attorney McCollom testified that even if a court determines that Exhibit 172 is prior art to the '882 patent it would not

"be material such that ... [he] would feel, under the duty of candor, that ... [he] had an obligation to turn it over to the patent examiner"

because

"I don't think it describes the claimed invention, nor does it enable the person skilled in the art to practice it."

- 71. I expect to point out that the Treasure Island installation, which Attorney McCollom knew about during the time both the '882 and '817 applications were being examined (see ¶ 68 above), was sold to Treasure Island by Acres who negotiated the sale (Acres deposition, 6/29/98, p. 66).
- 72. I expect to point out that Attorney McCollom has testified, at pages 171-4 of his deposition of September 1, 1998, that he did not know about Exhibit 6, the FORM SB-2, until a week before his deposition, but that he would not have cited it to the Examiner because
 - "I don't think it's material, and I know of no facts that would lead me to believe that it was published more than 1 year prior to the filing date."
- 73. I expect to point out that Acres signed the FORM SB-2 but did not disclose it to his patent attorney because
 - "I didn't see any relevance." (See ¶ 24 above).
- 74. I expect to testify that, based on the documents and testimony reviewed to date, no reasonable explanations have been given for the many failures to disclose information

material to patentability and the many failures in the duty of candor and good faith. The documents and testimony reviewed to date clearly and convincingly establish that both Acres and Attorney McCollom knew that Acres had been in a "marketing mode" prior to the critical date. Further, Attorney McCollom, as well as Acres, knew, while the '882 and '817 applications were being examined about the Treasure Island installation and the Winnebago effort. Both Acres and Attorney McCollom were involved in Acres' initial public offering, Acres signing the FORM SB-2 and Attorney McCollom assisting the underwriters in preparing or reviewing the prospectus, and purchasing shares (see ¶ 26 above). Even if Acres and/or Attorney McCollom believed the initial public offering documents were not prior art, or were not enabling, such documents disclosed the contracts Acres had obtained prior to the critical date and were highly material for that reason alone. Contrary to Attorney McCollom's allegation that Exhibit 172 was not material (see ¶ 70 above), Exhibit 172 was used by Attorney McCollom in preparing the '961 application and was likewise highly material, containing as it did Figure 1 of all three patents. No reasonable explanation has been advanced, or is apparent, for the failures in disclosure and the duty of candor and good faith which have been clearly and convincingly established by the documents and testimony reviewed to date. As the Court of Appeals for the Federal Circuit has stated in La Bounty Manufacturing Inc. v. U.S. International Trade Commission, 22 USPQ2d 1025, 1033

(Fed. Cir. 1992),

"La Bounty argues, nevertheless, that the ALJ's finding should be set aside because the issues respecting experimental use ... were 'close' and, therefore, Roy La Bounty and his attorney could reasonably have decided these devices did not have to be disclosed. On the contrary, that makes it all the more necessary that the devices should have been disclosed to the examiner. Close cases should be resolved by disclosure, not unilaterally by the applicant."

In the present circumstances, there is no basis to conclude that Acres and his attorney "could reasonably have decided" the information did not have to be disclosed, or that this is even a "close case".

INTENT TO DECEIVE

75. I expect to testify that, based on the documents and testimony reviewed to date, the failures to disclose information material to patentability, and the failures in the duty of candor and good faith, which have been shown by clear and convincing evidence, were acts whose natural consequences were presumably intended by those substantively involved in the preparation and prosecution of the applications leading to the '882 and '817 patents, i.e., the '961 application, the '882 application, and the '817 application. This showing by clear and convincing evidence of acts the natural consequences of which were presumably intended by the actors is sufficient to establish that the acts occurred as a result of an intent to deceive. The natural consequences of the failures to disclose the Concept III brochure (Exhibit 172, Exhibit 3, and/or other

versions), the FORM SB-2 (Exhibit 6), and the "on sale" activities, including at least the Casino Royale "bonus system" offers, the Treasure Island contract for "Progressive jackpots for slot machines", and the completed August, 1993, Rio Suites Hotel & Casino installation of "Progressive jackpots for table games", were that the '961 application, the '882 application, and the '817 application, would all issue as United States patents without the PTO Examiner having considered all of this highly material information.

BALANCING OF MATERIALITY AND INTENT

76. I expect to testify that, based on the documents and testimony reviewed to date, balancing the high level of materiality of the information not disclosed and the importance of the failures in the duty of candor and good faith, which have been shown by clear and convincing evidence, with the clear and convincing showing of intent, justifies and necessitates a finding that the '882 and '817 patents were obtained through inequitable conduct, and that the finding is supported by clear and convincing evidence. The documents and testimony reviewed to date clearly and convincingly support a conclusion that "but for" the failures the '882 and '817 patents would not have issued with the Claims they now contain, or at least would not have issued without the record being clarified as to why they should issue.

CONCLUSION ON INEQUITABLE CONDUCT

77. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the '882 and '817 patents were obtained through inequitable conduct.

As I may become aware of additional information regarding these issues and other issues, I reserve the right to modify my opinions stated in this report and develop additional opinions on other issues. I also may testify in rebuttal to positions taken by Acres Gaming during the presentation of its case.

III. INFORMATION RELIED ON IN SUPPORT OF OPINIONS

The information relied on in support of my opinions includes the following:

- 1. Knowledge, skill, experience, training and education of expert witness.
- 2. Acres et al. United States Patent No. 5,655,961 and its prosecution history.
- 3. Acres et al. United States Patent No. 5,752,882 and its prosecution history.
- 4. Acres et al. United States Patent No. 5,836,817 and its prosecution history.
- 5. Depositions of John F. Acres taken June 29, 1998, and March 16 and 17, 1999, and Exhibits 5-8 and 254-286.
- 6. Depositions of Alan McCollom taken September 1 and December 9, 1998, and Exhibits 124-137 and 153-177.

- 7. Deposition of Alec Ginsberg taken July 10, 1998, and Exhibit 9.
- 8. Depositions of David Wiebenson taken June 11, 1998, and March 4, 1999, and Exhibits 1-4 and 234-253.
- 9. Deposition of Jose Vega taken January 25, 1999, and Exhibits 185-200.
- 10. Deposition of Mary Ann Wismer taken February 25, 1999.
- 11. Deposition of Elizabeth Borchard taken August 31, 1998, and Exhibits 100-123.
- 12. Deposition of Richard Heise taken September 30, 1998, and Exhibits 33-55.
- 13. Deposition of Robert Brown taken June 11 and December 10, 1998.
- 14 Deposition of Michelle Ware taken December 8, 1998.
- 15. Casino Royale documents CDS 0008206-37.
- 16. Schodde letter dated May 21, 1999, with NGCB 0163-8.
- 17. Acres letter of September 15, 1993, to Kim Lighthart (0048-51).
- 18. Expert Witness Report of Thomas F. Smegal, Jr.
- 19. Expert Witness Report of Leroy A. Prohofsky dated February 16, 1999.
- 20. Transcript of Hearing of January 19, 1999, before Judge McKibben.
- 21. CDS' 3rd, 4th, 5th, and 6th Motions for Summary Judgment and Acres' Responses thereto, as well as earlier Motions and papers filed.
- 22. U.S.Patents No. 4,652,998; 4,837,728; 5,249,800; 5,326,104; 5,580,309; and 5,668,950.
- 23. UK Patent Application GB 2151054A.

- 24. PCT Published Application WO 95/30944.
- 25. Various sections of Title 35, United States Code; Title 37, CFR; the MPEP; and various Court decisions.

CONSULTING FEE

I am compensated at the rate of \$ 200.00 per hour plus out of pocket expenses for my work on this case.

Tune 3, 1999

Date

R. Franklin Burnett

R Franklin Burnel

Qualifications And Experience

Of

R. Franklin Burnett 4902 Highway 25 South Greenwood South Carolina 29646-9084 Phone: (864) 227-1332

Qualifications

Education:

B.S., Agricultural Engineering (1956), Clemson University, Clemson, S.C.

Juris Doctor With Honors (1962), The George Washington University,

Washington, D.C.

Bar Membership:

District of Columbia

Qualified

To Practice:

Before U.S. Patent and Trademark Office

<u>Personal</u>

Born:

July 5, 1934, Married. Two Children.

<u>Experience</u>

1989 to Present Patent Consultant

1989

Consultant to the Government of Indonesia on establishing a Patent System and Patent Office

- -Management consultant to the Director General of Copyrights, Patents, and Trademarks of the Ministry of Justice of Indonesia
- -taught a course in patent law and patent examination to prospective Indonesian patent examiners

R. Franklin Burnett page 2

1972-1989
Special Assistant To The Assistant Commissioner For Patents, USPTO

Position was in the Senior Executive Service (SES) of the Federal Government and had various wide ranging legal, technical, administrative, and supervisory responsibilities, including

- -providing staff assistance to Assistant Commissioner (Presidential Appointee) responsible for the patent examining and documentation organizations which had over 1600 professional and over 500 clerical employees
- -developing new patent examining programs and the rules and procedures to carry them out
- -supervising Special Program Examination Unit composed of 10-15 examiners (lawyers) and a number of clerical employees
- -participating in negotiating, modifying, and implementing international patent treaties and agreements involving the major developed and developing countries of the world
- -drafting patent legislation which was later enacted into law
- -negotiating labor agreements with organizations representing USPTO employees
- -representing the USPTO in various meetings with, and by speaking before, public and international groups
- -testifying on behalf of the USPTO as a witness in various arbitration proceedings and in Federal Court
- -directing, during a period of two years in the 1970's, two patent examining groups, each including in excess of 100 professional and clerical employees

Reason for leaving: Retirement after 33+ years Federal Government service

R. Franklin Burnett page 3

1967-1972 Supervisory Patent Examiner, Examining Group 160, (Chemical Engineering) USPTO

Responsible for the direct supervision and training of about 20 patent examiners in the examination of patent applications.

1966-1967 Commerce Science & Technology Fellow

Selected to participate in, and participated in, Commerce Science & Technology Fellowship Program. Educational and work program which included training in public policy issues by the Brookings Institution, Congressional orientations, and on-the-job experience as an attorney with the Environmental Science Services Administration (ESSA).

1959-1966 Patent Examiner USPTO

Examined patent applications in various mechanical engineering fields of technology.

1957-1959 United States Army Officer

Commanded various units of paratroopers in the 50th Airborne Signal Battalion, Fort Bragg, North Carolina. Highest rank on active duty-1st Lieutenant; discharged from Army Reserve as a Captain.

1956-1957
Patent Examiner
USPTO

Examined patent applications in various mechanical engineering fields of technology.

Honors And Awards

Recipient of the Meritorious Executive Rank Award in the SES (1986); Recipient of the Department of Commerce Gold Medal Award (1984) and Silver Medal Award (1975) and numerous other performance awards; served on The George Washington University Law Review.

List of Cases in which R. Franklin Burnett has testified at trial or in court since leaving the Patent and Trademark Office in August 1989

- Spindelfabrik Suessen-Schurr, et al., Plaintiffs v.
 Schubert & Salzer Maschinenfabrik Aktiengesellschaft, et al.,
 Defendants, C.A. No. 83-2421-3, United States District Court For The District Of South Carolina, Greenville Division
- Golden Valley Microwave Foods, Inc., Plaintiff v. Weaver Popcorn Company, Inc., et al., Defendants, C.A. No. F 88-00251, United States District Court For The Northern District Of Indiana, Fort Wayne Division
- 3. <u>Tarkett, Inc., Plaintiff v. Congoleum Corporation, Defendant, C.A. No. 91-CV-4830, United States District Court For The Eastern District Of Pennsylvania</u>
- 4. <u>Kinetic Concepts, Inc.</u> v. <u>Support Systems International</u>, <u>Inc. and SSI Medical Services, Inc.</u>, C.A. No. SA-91-CA-0927, Western District of Texas, San Antonio Division
- 5. C.R. Bard, Inc. v. M3 Systems, Inc., C.A. No. 93-C-4788, Northern District of Illinois, Eastern Division
- 6. Tronzo v. Biomet, Inc., Civil Action No. 91-8175-CIV, Southern District of Florida, West Palm Beach Division
- 7. <u>Viskase Corporation</u> v. <u>American National Can Company</u>, C.A. No. 93 C 7651, Northern District of Illinois, Eastern Division
- 8. Rieter Ingolstadt Spinnereimaschinenbau Aktiengellschaft
 v. Hollingsworth Saco Lowell Corporation, C.A. No. 6:92-2207-3AK,
 United States District Court For The District of South Carolina,
 Greenville Division
- 9. Pacesetter, Inc. v. Cardiac Pacemakers, Inc., Civil Action No. 4-96-1084, United States District Court For The District of Minnesota, Fourth Division

List of Depositions of R. Franklin Burnett since leaving the Patent and Trademark Office in August 1989

- 1. Kimberly-Clark Corporation, Plaintiff v. AMOCO Fabric and Fibers Company, Defendant, Civil Action File No. 1:91-CV-2211-HTW, United States District Court For The Northern District Of Georgia, Atlanta Division
- 2. GRiD Systems Corporation and Tandy Corporation v. Texas Instruments Incorporated, et al., Civil Action No. C-90-2571-DLJ, United States District Court, Northern District of California
- 3. <u>Ball Corporation</u> v. <u>American National Can Company</u>, Civil Action No. IP91 434C, United States District Court, Southern District of Indiana, Indianapolis Division
- 4. Rieter Ingolstadt Spinnereimaschinenbau Aktiengesellschaft v. Platt Saco Lowell Corporation, Civil Action No. 5-92-2207-3, United States District Court For The District Of South Carolina, Greenville Division
- 5. <u>Kinetic Concepts, Inc. v. Support Systems International, Inc. and SSI Medical Services, Inc. C.A. No. SA-91-CA-0927, Western District of Texas, San Antonio Division</u>
- 6. <u>Dallas Semiconductor Corporation</u> v. <u>Crystal Semiconductor Corporation</u>, Civil Action No. A94-CA580-SS, Western District of Texas, Austin Division
- 7. <u>Viskase Corporation</u> v. <u>American National Can Company</u>, Civil Action No. 93 C 7651, Northern District of Illinois, Eastern Division
- 8. Tronzo v. Biomet, Inc., Civil Action No. 91-8175-CIV, Southern District of Florida, West Palm Beach Division
- 9. IRO AB and IRO, Inc. v. Sarfati & Vischiani S.p.A., et al., Civil Action No. 6:94-2834-3, District of South Carolina, Greenville Division
- 10. In The Matter Of: Certain Electronic Products Including Semiconductor Products, Manufactured By Certain Processes, Investigation No. 337-TA-381, United States International Trade Commission, Washington, D.C. 20436
- 11. The Johns Hopkins University v. Cardiac Pacemakers, Inc., et al., Civil Action No. Y-96-1527, District of Maryland, Northern Division
- 12. Pacesetter, Inc. v. Cardiac Pacemakers, Inc., Civil Action No. 4-96-1084, United States District Court For The District of Minnesota, Fourth Division

- Page 2
 List of Depositions of R. Franklin Burnett since leaving the Patent and Trademark Office in August 1989
- 13. Angeion Corporation v. Cardiac Pacemakers, Inc., Civil Action No. 97-1681 JMN/FLN, United States District Court For The District of Minnesota, Fourth Division
- 14. The Regents Of The University Of California v. Genentech, Inc., Civil Action No. 90-2232 CAL, United States District Court For The Northern District Of California
- 15. Connaught Laboratories, Inc. v. SmithKline Beecham P.L.C., et al. Civil Action No. 3: CV-97-1406, United States District Court For The Middle District of Pennsylvania

Certificate of Service 2 I hereby certify that a copy of the foregoing EXPERT WITNESS REPORT OF R. FRANKLIN BURNETT was served on the following persons: 3 Via First Class Mail 4 Mark Rosencrantz, Esq. Jolley Urga Wirth & Woodbury 5 3800 Howard Hughes Parkway, 16th Floor 6 Las Vegas, Nevada 89109 7 Via First Class Mail Adam P. Segal, Esq. 8 Schreck Morris 9 1200 Bank of America Plaza 300 South Fourth Street 10 Las Vegas, Nevada 89101 11 Via First Class Mail Allan T. McCollom, Esq. 12 Marger, Johnson, McCollom & Stolowitz, P.C. 13 1030 S.W. Morrison Street Portland, Oregon 97205 14 Via Federal Express 15 Jerry A. Riedinger, Esq. Perkins Coie LLP 16 1201 Third Avenue, 40th Floor 17 Seattle, Washington 98101-3099 18 Via Federal Express Steven E. Shapiro, Esq. 19 Mitchell Silberberg & Knupp, LLP 11377 West Olympic Boulevard 20 Los Angeles, California 90064-1683 21 22 23 Dated: June 4, 1999 24 25

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| 1 2 3 4 5 | William R. Urga Nevada Bar No. 001195 Mark Rosencrantz Nevada Bar No. 006475 JOLLEY, URGA, WIRTH & WOODBURY 3800 Howard Hughes Parkway, 16th Fl. Las Vegas, Nevada 89101 | |
|-----------------------|--|----------------------------|
| | (702) 699-7500 | . • |
| 6 7 8 9 | Jerry A. Riedinger Michael D. Broaddus Mark G. Jackson PERKINS COIE LLP 1201 Third Avenue, 40th Fl. Seattle, WA 98101-3099 | |
| 10 | (206) 583-8888 | |
| 11 | Attorneys for Acres Gaming Inc. | |
| 12 | UNITED STATES DISTRICT COURT | |
| 13 | DISTRICT OF NEVADA | |
| 14 | | 1462 |
| 15 | NOTION CAMENIC CORP | NO. CV-S-98-1383-HDM (LRL) |
| 16 | MIKOHN GAMING CORP., | (Base File) |
| 17 | Plaintiff, | |
| 18 | | REBUTTAL STATEMENT BY |
| 19 | ACRES GAMING INC., | EXPERT WITNESS THOMAS F. |
| 20 | Defendant, | SMEGAL, JR. |
| 21 | ACRES GAMING INC., | |
| 22 | Plaintiff, | |
| 23 | v. | · |
| 24 | MIKOHN GAMING CORPORATION, NEW | |
| 25 | YORK NEW YORK HOTEL & CASINO DATA SYSTEMS, and SUNSET STATION HOTEL & CASINO, | |
| 26 | | · |
| 27 | Defendants. | |
| 28 | | |

I. Introduction

I am Thomas F. Smegal, Jr. I have been retained as an expert witness by Plaintiff Acres Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted an Expert (462-Witness Report in this consolidated case (NO. CV-S-98-1283-HDM (LRL) (Base File) ("Second Consolidated Case"), dated June 4, 1999, which I incorporate into this rebuttal statement. In that June 4, 1999 Report, I describe my technical background and qualifications, and I provided a detailed description of the process and procedures for prosecution of patents before the PTO and the issuance of patents by the PTO. The documents reviewed by me in connection with the June 4, 1999 Report, include the patents-in suit in the Second Consolidated Case, i.e. the '459 and '817 patents, and also the prosecution history for each of the '459 and '817 patents-in-suit.

I also previously submitted an Expert Witness Report in the co-pending consolidated case (NO. CV-S-97-1383-HDM (LRL) ("First Consolidated Case") in February 1999, which I incorporate into this rebuttal statement. In that Report, I describe my technical background and qualifications, and I provided a detailed description of the process and procedures for prosecution of patents before the PTO and the issuance of patents by the PTO. The documents reviewed by me in connection with that February 1999 Report, include the patents-in suit in the First Consolidated Case, i.e. the '961 and '882 patents, and also the prosecution history for each of the '961 and '882 patents-in-suit.

In addition, in preparing this rebuttal statement, I also have reviewed the Declaration of John F. Acres dated October 5, 1998, the Supplemental Declaration of John F. Acres dated May 21, 1999, the Rebuttal Statement by Expert Witness John F. Acres dates July 19, 1999, the Rebuttal Statement by Expert Witness William K. Bertram, Ph.D. dated March 15, 1999, and the Rebuttal Statement by Expert Witness William K. Bertram, Ph.D. dated July 19, 1999. I also have

reviewed the deposition transcript of Alan McCollom, John F. Acres and William K. Bertram, Ph.D.

II. Evaluation Summary of Mr. Burnett's Report

I have reviewed the Expert Witness Report of R. Franklin Burnett dated June 7, 1999 ("the Burnett Report"). I disagree with Mr. Burnett's conclusions regarding alleged inequitable conduct during the procurement of the '817 and '882 patents. Mr. Burnett contends that certain "material" information to the applications for both the '817 and '882 patents was available as a "printed publication or as an "on sale activity" prior to October 12, 1993, i.e. more than one year before the filling date of the application that matured into U.S. 5,655,961, of which the '882 and '817 applications are divisional applications filed under 37 CFR §1.60. Specifically, it is my opinion that a comparison of claim 10 of the '882 patent with the content of the Concept III document, the SB-2 registration, and/or the "On Sale Activities" listed in the Burnett Report does not establish "a prima facie case of unpatentability" and therefore is not information material to patentability under 37 CFR §1.56. It is also my opinion that a comparison of claim 22 of the '817 patent with the content of the Concept III document, the SB-2 registration, and/or the "On Sale Activities" listed in the Burnett Report does not establish "a prima facie case of unpatentability" and therefore is not information material to patentability under 37 CFR §1.56.

In addition, I disagree with Mr. Burnett's conclusion that the failure to disclose the Concept III document, the SB-2 filing, and/or the "On Sale Activities" listed in the Burnett Report by the actors involved in the preparation and prosecution of the application leading to the '882 and '817 patents justifies an inference of "intent to deceive", as this term is understood and applied by the Federal Circuit.

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Ш. Analysis

Concept III Document Was Not Material Under 37 CFR §1.56

I understand from technical experts Dr. Bertram and John Acres that the Concept III document would not teach a person of ordinary skill in the art to develop a system that has the elements of either claim 22 of the '817 patent or claim 10 of the '882 patent. In fact, according to Dr. Bertram, the Concept III document provides only an overview of what might be done, without providing any details at all. Further, John Acres testified that the Concept III document provides only a general description of various concepts and systems, without providing the details necessary to implement such concepts and systems. Finally, Alan McCollom, the attorney who prosecuted the '817 and '882 patents testified in deposition that he did not believe he had an obligation to disclose the information regarding Concept III to the patent examiner because it did not describe the claimed invention, and did not enable a person skilled in the art to practice it. McCollom Dep. at 365-366. As such, it is my opinion that the Concept III document does not establish "a prima facie case of unpatentability" of either claim 22 of the '817 patent or claim 10 of the '882 patent and therefore, was not information material to patentability under 37 CFR §1.56. Consequently, alleged "on sale activity" in the Burnett Report due to disclosure of the Concept III documents to Wisconsin Winnebago, Binion's Horseshoe Casino, and the Ramada Express Casino was not "on sale activity" that was material to the '817 and '882 applications.

SB-2 Registration Statement Was Not Material Under 37 CFR §1.56

I understand from technical experts Dr. Bertram and John Acres that the SB-2 Registration Statement would not teach a person of ordinary skill in the art to develop a system that has the elements of either claim 22 of the '817 patent or claim 10 of the '882 patent. In fact, according to

Dr. Bertram, the SB-2 Registration Statement provides only an overview of what might be done, without providing any details at all. Further, John Acres has stated that the SB-2 Registration Statement provides only a general description of various concepts and systems, without providing the details necessary to implement such concepts and systems. As such, it is my opinion that the SB-2 Registration Statement does not establish "a prima facie case of unpatentability" of either claim 22 of the '817 patent or claim 10 of the '882 patent and therefore, the SB-2 was not information material to patentability under 37 CFR §1.56.

C. The "On-Sale Activities" in the Burnett Report Were Not Activities Material to Patentability Under 37 CFR §1.56

1. Casino Royale Activities

I understand that John Acres was involved in some discussions in April 1993 with personnel at Casino Royal concerning a potential new Acres gaming product, called "Double Dollar Time" which included a "bonus system". I also understand, according to John Acres, that in April 1993, "Double Dollar Time" was merely a concept, not a product and a price was offered to gauge the seriousness of Casino Royale's interest. Since such evidence does not suggest that "Double Dollar Time" or the included "bonus system" actually existed in April 1993 or even later in July 1993, the "bonus system" offer did not establish "a prima facie case of unpatentability" and was not information material to patentability of the Claims of the '882 and '817 patents.

2. Treasure Island Activities

Mr. Burnett contends that Acres sold a progressive jackpot system for slot machines to the Treasure Island Casino in Las Vegas more than one year prior to the filing date of the '961 application and that such sale "prima facie" qualified as prior art under 35 USC §102(b). I

understand from Dr. Bertram that the networked gaming system described and claimed in the '817 and '882 patent differs significantly from that system specified in connection with the Treasure Island purchase order. Further, I understand from Dr. Bertram, a technical expert in the gaming industry, that one skilled in the art of gaming device design would not, upon learning of the original specifications of the Treasure Island installation, have understood that the invention of claim 22 of the '817 patent or claim 10 of the '882 patent was contemplated in that purchase order. I also understand from John Acres that the complete invention of the '882 patent was not conceived and reduced to practice until several months after the Treasure Island casino opened on October 27, 1993. John Acres has also stated that the preselection feature of the invention of claim 22 had not yet been developed when the Treasure Island casino opened in October 1993. As such, it is my opinion that the gaming system installed at the Treasure Island Casino in October 1993 did not establish "a prima facie case of unpatentability" and, therefore, was not information material to patentability of the '882 and '817 patents.

3. Rio Suites Hotel & Casino Activities

Mr. Burnett contends that Acres sold and installed a progressive jackpot system for table games at the Rio Suites Hotel and Casino in August 1993 and that such sale "prima facie" qualified as prior art under 35 U.S.C. §102(b) of the inventions claimed in the '817 and '882 patents. I understand from Dr. Bertram that these table games encompassed conventional gaming device technology in 1993 and did not include the inventions of the '882 patent or the '817 patent. In particular, I understand that these progressive table games did not include machine payout of the progressive amount. Instead, as explained by John Acres and Dr. Bertram, the dealer was required to recognize the occurrence of the jackpot event, and the dealer would then cause the jackpot to be

awarded. I also understand from John Acres that the Rio table games used conventional gaming device technology in 1993 and did not include the inventions disclosed in the '817 or '882 patents. As such, it is my opinion that the table games system installed at the Rio Suites Hotel and Casino in August 1993 did not establish "a prima facie case of unpatentability" and, therefore, was not information material to patentability of the claims of the '882 and '817 patents.

D. The Burnett Report Fails to Establish Any Intent To Deceive

I expect to testify that in order to establish the intent element of inequitable conduct, the involved conduct, viewed in the light of all the evidence, including evidence indicative of good faith, must indicate sufficient culpability to require a finding of intent to deceive. I also intend to explain that the Federal Circuit has held that gross negligence alone does not mandate a finding of intent to mislead and that the alleged conduct must not amount merely to the improper performance of, or omission of, an act one ought to have performed. Rather, clear and convincing evidence must prove that an applicant had the specific intent to mislead or deceive the PTO. In a case involving nondisclosure of information, I will explain that the controlling Federal Circuit law requires a showing that the applicant made a "deliberate decision to withhold a known material reference." See Molins PLC v. Textron, Inc., 48 F.3d 1172, 1181 (Fed. Cir. 1995); see also Allied Colloids Inc. v. American Cynamid Co., 64 F.3d 1570 (Fed. Cir. 1995); Therma-Tru Corp. v. Peachtree Doors Inc., 44 F.3d 988 (Fed. Cir. 1995); Kingsdown Medical Consultants, Ltd. v. Hollister, Inc., 863 F.2d 867 (Fed. Cir. 1988).

Here, I have review the evidence in the Burnett Report, and even without consideration of the good faith of the actors involved in the prosecution of the applications that matured into the '817 and '882 patents, it is my opinion that the evidence relied upon in the Burnett Report is wholly

inadequate in demonstrating evidence that supports a finding of intent to deceive.

IV. Mr Burnett's Relevant Experience

I have reviewed the resume for Mr. Burnett attached to the Burnett Report and it appears Mr. Burnett has no experience in the gaming industry. Further, I understand that Mr. Burnett was not present during the depositions of John Acres or Alan McCollom and could not observe the demeanor of these individuals during live testimony. I also expect to testify about the Special Program Examination Unit at the PTO and the reasons why this Unit was disbanded.

V. Conclusion

It is my opinion that CDS and their expert Mr. Burnett have not identified any information in the Burnett Report that would teach one skilled in the gaming device art in 1993 to make the inventions described and claimed in the Acres '882 and '817 patents. As such, I do not believe that the content of the Concept III document, the SB-2 registration, and/or the "On Sale Activities" listed in the Burnett Report establish "a prima facie case of unpatentability" with respect to either the '817 or '882 patents and therefore is not information material to patentability under 37 CFR §1.56. Further, I disagree with Mr. Burnett's conclusion that the failure to disclose the Concept III document, the SB-2 filing, and/or the "On Sale Activities" listed in the Burnett Report by the actors involved in the preparation and prosecution of the application leading to the '882 and '817 patents justifies an inference of "intent to deceive", as this term is understood and applied by the Federal Circuit.

By: Thomas F. Smegal Jr.

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